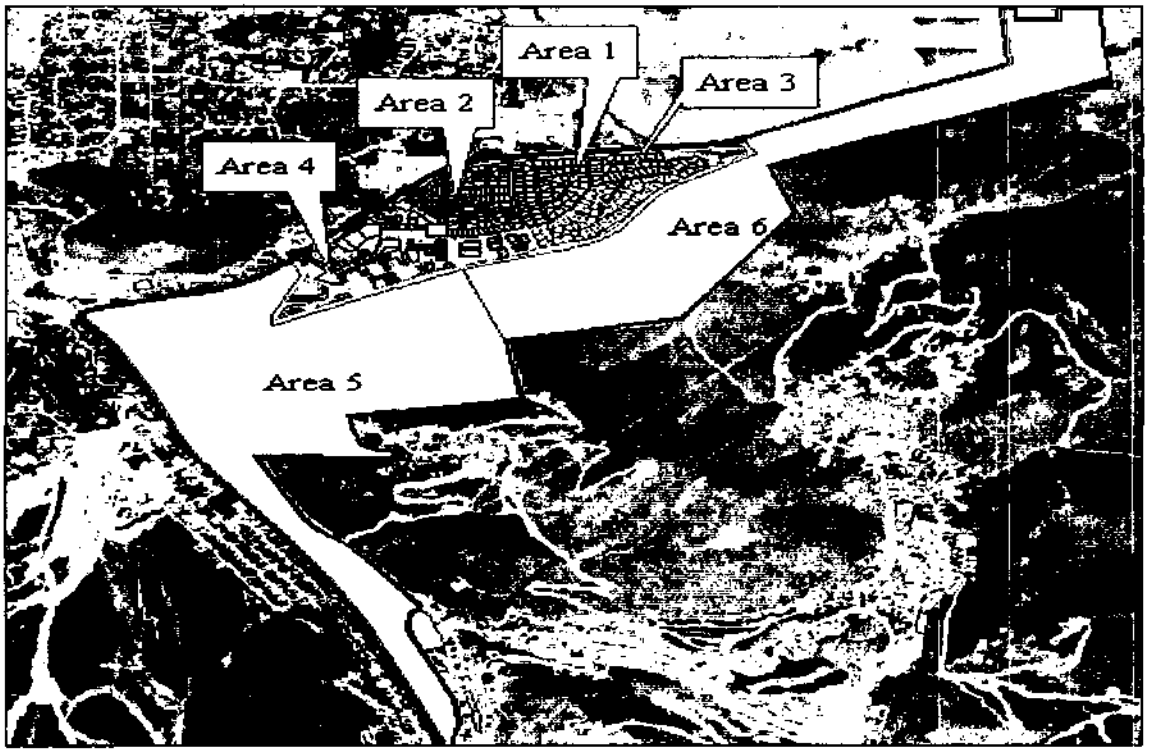

PARK CITY MUNCIPAL CORPORATION

SOILS ORDINANCE AREA ENVIRONMENTAL MANAGEMENT SYSTEM

August 21, 2002

DRAFT

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1.0 INTRODUCTION:

In a cooperative effort with the Utah Department of Environmental Quality (UDEQ) and the United States Environmental Protection Agency (USEPA), Park City Municipal Corporation (PCMC) has agreed to the implementation of an Environmental Management System (EMS) to further protect human health and the environment within the Soils Ordinance Area. As a result the goal for the EMS is to define the environmental procedures, standards, education, and controls for protecting the sites long-term integrity and the residents residing within the area. To fulfill that goal the EMS is broken down into the following four functions:

- Environmental Policy
- Soil Mitigation Compliance Program
- Education and Public Outreach
- Records and Data Management Systems

The implementation of these components will represent a systematic approach that fulfills the long-term concerns of UDEQ and USEPA, while also offering a practical yet achievable program that can be administered by PCMC and the Prospector residents.

2.0 SITE BACKGROUND

USEPA and the UDEQ have been investigating and evaluating mine sites within the Park City area since the early 1980's. During these evaluations, Silver Creek Tailings Site now known as Prospector Square was investigated to determine the potential environmental impacts. As a result, USEPA proposed listing the Prospector Square area on the National Priorities List (NPL) in 1985. This resulted in a controversial scenario with the community, since much of Prospector Square was being developed into a residential subdivision of the City. USEPA's concerns with the development of the area were based on exposure risks of residential households being situated within an area known to contain mine tailing waste. The hazardous constituents of concern that were known to be within the mine tailing waste were lead, arsenic, and cadmium.

The proposal to list the site on the NPL list resulted in Prospector residents and PCMC being opposed to USEPA's action and the Superfund program. The opposition to the regulatory action was related to the premise that most in the community felt the initial scientific evaluation used to score the site was flawed. In addition, PCMC and its citizens implemented a "Special Improvement District" to cap the majority of the exposed tailings. At the same time the Improvement District was formed, the City pursued the re-scoring of the site. Due to USEPA's resistance to reevaluate the site, the City pursued intervention by Congress, which resulted in Congressional action. Because of this action the Prospector Square development was removed from NPL consideration. In addition, a line item in the 1986 SARA amendments precluded the site from any future listing on the NPL unless significant new information was discovered. PCMC sought further scientific review of the site by cooperating with the agencies by developing a scientific study[1] that focused on air, water, and health. The study was developed with water quality testing input from the USGS. Based on these studies the site was not re-listed due to the low scoring of the site, which reflected minimal risk. After USEPA Region 8 evaluated the

This section is biased and should be rewritten.

1 Ambient Air and Residential Characterization Report for Prospector Square

If we research this, perhaps we should point out blood lead data = potential health problem. Or that all recommendations weren't followed.

scientific data generated from this study, Robert Duprey, Director of Hazardous Waste Management Division wrote in a letter dated July 28th 1988 the following:

> *"EPA concurs in ATSDR's finding that there is no evidence of exposure to lead, arsenic, cadmium at levels believed to be harmful among current residents in the study area"*[2]

The letter went on to say that there still remains a "potential" for direct contact and ambient air exposure[3] to heavy metals. However the letter concluded in stating "we conclude that they do not present a public health hazard". Nonetheless, PCMC realized and understood that there remained a potential risk to public health; therefore an alternative strategy was developed to manage the risks within the form of local ordinances.

The PCMC strategy was the implementation of a cap program for vacant property residing within the Prospector area beginning in 1985. This Ordinance was enacted in 1988 and is contained in PCMC Landscaping and Soil Maintenance Cover requirements in Title 11 Chapter 15 of the Building Regulations[4]. In general, the Landscaping and Soil Maintenance Cover requirements called for 6" "clean top soil" cap for the Prospector lots. Furthermore, an action level for capping a lot was established at 1000 ppm for "existing development" and for "new construction" and imported fill an action level of 200 ppm was adopted. In addition, the ordinance required the maintenance of vegetation and landscaping standards in order to maintain the cap and contain underlying mine related material. Figure 1 represents the Expanded and Original Soils Ordinance Boundary within Park City.

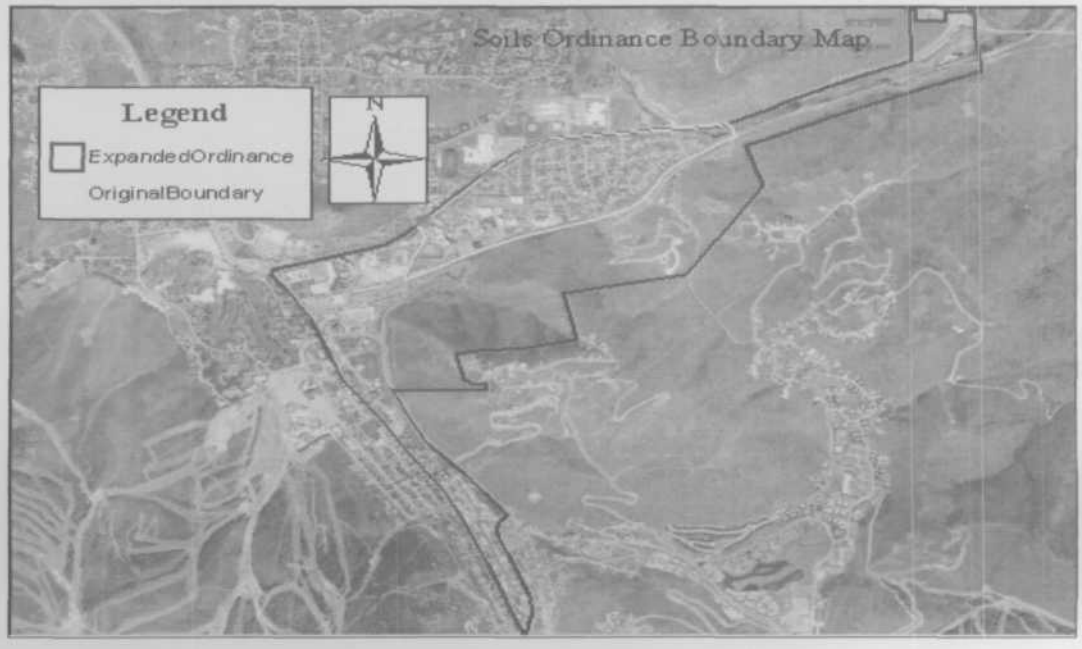


Figure 1 Expanded and Original Soils Ordinance Boundary[5]

The acceptance by USEPA of the PCMC ordinance strategy has been reluctant due to the lack of

2 July 28th 1988 Correspondence Page 1 Paragraph 3 Tab 1
3 July 28th 1988 Correspondence Page 1 Paragraph 4 Tab 1
4 Chapter 15 Park City Landscaping and Maintenance of Soil Cover 11-15-1 Tab 2
5 Tab 13 Contains the Soils Ordinance Map

supporting data to validate that the ordinance has been successful in minimizing human health and environmental risks. However, in a cooperative effort with PCMC, USEPA gave qualified approval to the ordinance approach.

Since the inception of the ordinance program, the area has been developed and the majority of the properties have been sampled and capped. The City has also devoted a great deal of resources to the effort, which has resulted in the concept being increasingly effective at managing and enforcing the Ordinance. More importantly, property owners have spent thousands of dollars per property to install the cap and other controls to minimize the risks[6]. In addition, the Prospector Home Owners Association has also played a very important role in raising awareness and educating residents residing within the neighborhood. This organization also assists the City in enforcement and oversight in addressing issues that may arise related to cap integrity and ordinance infractions. With the success of the program PCMC has expanded the Ordinance area to encompass a much larger landmass of known areas to have had historical mining activity. This area is referenced as Park City's Expanded Soils Ordinance Area.

Because of the success with the ordinance, PCMC is proposing to implement an Environmental Management System to further strengthen the Soils Ordinance Program on a long-term basis. It is PCMC position that this EMS, in order to be successful and meet all of the stakeholder's expectations will have to be contributed by all and mutually agreed upon. PCMC and the Prospector residents understand that for any EMS to be successful there must be a serious commitment by the City and the residents towards the implementation of the program. It is PCMC and the residents desire with the implementation of this long-term program and with the contribution by USEPA and UDEQ that the Silver Creek Tailings Site can be archived from CERCLIS.

Figure 2 Prospector Arial Before Capping 9-23-87

6 Figure 1 Represents an Arial Photo of Prospector not capped (9/23/87).

3.0 ENVIRONMENTAL POLICY

The purpose of this section is to document PCMC position on all of the environmental issues that reside within the Soils Ordinance area. The policy set forth will support the EMS protocol and be the long-term strategy for the area in order to minimize human and environmental risks.

3.1 Public Health and Environment

Park City acknowledges the community's vital interests in protecting its citizens' health and safety and preserving its natural resources. The City similarly wishes to address the City's environmental legacy as an historic mining community while retaining its world-class resort amenities, which are undeniably linked to the beauty, scenic attributes, and overall environmental quality of this mountain community. Park City therefore desires to become a leader in municipal environmental performance.

These goals must be integrated with other vital interests committed to by the City, including viable economic redevelopment; affordable housing; the cost-effective, safe and efficient delivery and operation of city services that meet public needs; and limited fiscal resources. To ensure that these public interests are balanced in a manner that provides the greatest opportunity for local citizen input and decision-making, the City desires to be the lead agency in responding to on-going environmental management and remediation efforts required in the area of the City, which is subject to the Park City Landscaping and Maintenance of Soil Cover Ordinance. Legal obligations in these matters are established by applicable laws and regulations; this Policy Statement is not intended to create further or additional requirements. To support the performance of the City's responsibilities and undertakings, the City Council hereby commits the City:

To implement and maintain an environmental management system that embraces all the City's responsibilities as set forth in herein and in the General Plan to protect the public health and environment. To comply with all environmental laws and regulations applicable to our utilities, property and public services;

- To assure that employees of the City receive training appropriate to their functions concerning the City's environmental responsibilities;
- To improve and foster communication with residents, tenants, realtors, contractors, property owners, service providers, other government agencies and other participants in the City's work program for these management practices and compliance requirements established to further the aims of this Policy Statement;
- To encourage employees and all other citizens to communicate with the City about ways to increase the effectiveness of City's practices supporting its mission of environmental stewardship;
- To make every reasonable effort to also protect the cultural and historic resources of the City.

What is EPA's position.

3.2 Utah Blood Lead Registry and Health Department

PCMC position on blood lead screening and monitoring is that this task is managed adequately through the Utah Department of Health, Division of Epidemiology and Laboratory Services. Through this department a program was developed with the intent of protecting the health of residence by identifying and controlling environmental health hazards. The Utah Blood Lead Registry (UBLR) is a database containing the test results of blood lead tests performed on adults and children who live in Utah. The UBLR was started in 1990 and is currently maintained by the Health Department. Under Utah Administrative Rule 386-703 (Injury Reporting Rule), Utah laboratories performing blood lead tests are required to report the results of those tests. Currently the reportable level in Utah is 10 micrograms of lead per deciliter of blood. Originally, the UBLR received only reports on adults with elevated blood lead levels. In 1996, EEP started collecting data on children as well as adults. The UBLR is currently used in two comprehensive ongoing studies of blood lead poisoning in Utah. Since 1996, there has only been one reportable test exceedance related to PCMC that was reported to the registry, which was in the age group of 0-72 months. Furthermore, it is believed that this particular incident was related to lead base paint and not lead soils ingestion. As a result, PCMC believes that this is further validation that the ordinance is working as intended to minimize heavy metal ingestion with the residence of the community.

4.0 SOIL MITIGATION COMPLIANCE PROGRAM

The purpose of this section is to further define PCMC commitment to the soil mitigation program and to strengthen it through additional language in order to address the long-term commitment. PCMC annual goal with the program is to pursue the objective of capping 15 lots with "clean top-soil" until all areas within the ordinance boundaries are capped.

4.1 Certificate of Compliance Program

As previously stated PCMC is seeking to cap the properties within the Expanded and Original Soils Ordinance Boundaries. During this time period PCMC will offer free testing of any residential lots within the regulated area. The testing would also be available for those residents that desire to have their lot tested to determine the compliance status of the property without the cap. Figure 3 represents lots that have been capped and remain in compliance within the original Prospector area. The lots identified in red are capped lots that have analytical results associated with the current compliance status. The remaining lots that are black are units that have yet to be capped and sampled.

Figure 3 Capped Lots Original Ordinance Area

Regarding the lots that have been currently capped within the Expanded Ordinance Area, Figure 4 represents these properties that have "Certificate of Compliance" documentation. Properties outside the boundaries identified in red, represent property owners that conducted the sampling as a precaution due to the close proximity of the boundary.

Figure 4 Capped Lots within Expanded Area[7]

4.2.0 Annual Lot Risk Assessment

The purpose of the annual risk assessment is to evaluate the Ordinance areas for certain human and environmental risk factors that could increase exposure. In addition, the assessment will provide PCMC the opportunity to monitor and verify that the proposed institutional controls are being complied with on a per lot basis. The discovery of situations that pose an increase

7 Tab 14 Contains Map "Capped Lots within Expanded Area

exposure risk would require the property owner to implement corrective actions within a reasonable time period. Park City would institute ordinance language that would reinforce mandatory corrective actions and a reasonable time period for completion. Continued non-compliance and refusal to implement corrective actives would be classified as a Class B Criminal Misdemeanor. The ordinance would require follow-up procedures on non-compliant properties in order to verify that the situation was remedied. PCMC and a Home Owners Association representative in addition to a regulatory representative would represent the assessment team. If a regulatory representative (UDEQ or USEPA) could not participate in the assessment the PCMC and Home Owners Association representative would complete the assessment and provide the report to the regulatory representative of the findings.

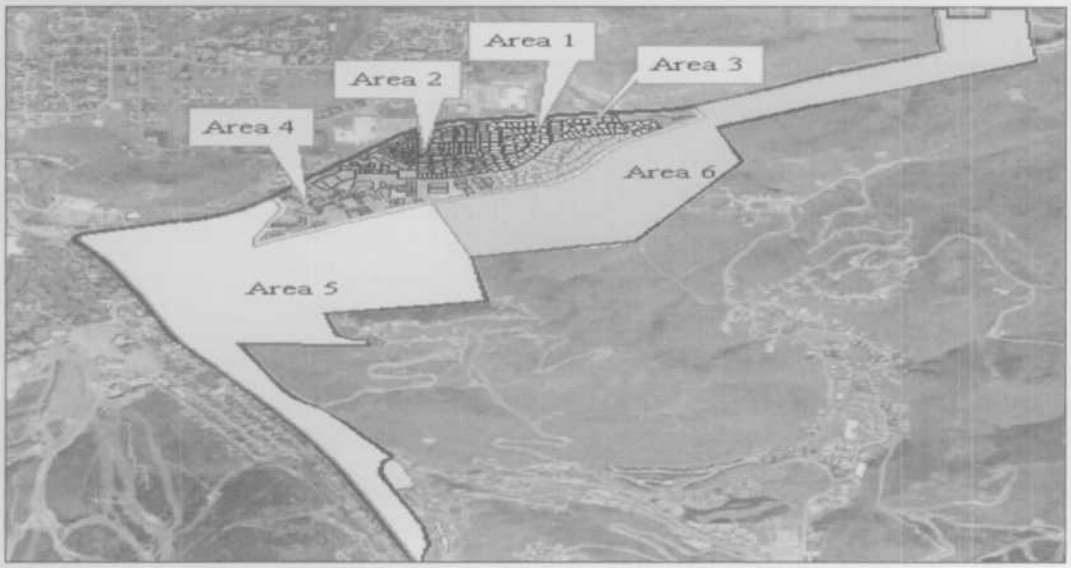


Figure 3 Assessment Areas

4.2.1 Assessment Areas

In order to conduct a comprehensive annual assessment the areas will be divided into 6 Areas. Since Areas 5 and 6 are within the expanded area, these properties have yet to be digitized and inventoried. However, as the lots are sampled these properties will be digitized and plotted for historical purposes.

Figure 3 represents the assessment areas and the streets within these boundaries have been identified in the following table:

Area 1 and Streets [8]	Area 2 and Streets [9]	Area 3 and Streets [10]	Area 4 and Streets [11]	Area 5 and Streets [12]	Area 6 and Streets [13]
Comstock	Monarch	Belle Starr	Sidewinder	Expanded Area	Expanded Area
Little Bessie	Little Bessie	Geronimo Court	Gold Dust Lane	**Refer to Tab 8**	**Refer to Tab 9**
Samuel Colt	Ina Avenue	Annie Oakley	Prospector Avenue		
Sidewinder	Sunrise Circle	Lily Langtry Court	Poison Creek Lane		
Buffalo Bill	Comstock	Wyatt Earp Way	Bonanza Drive		
Butch Cassidy	Calumet Court	Kearns	Kearns		
Wyatt Earp Way	Kearns				
Cochise Court					
Kearns					

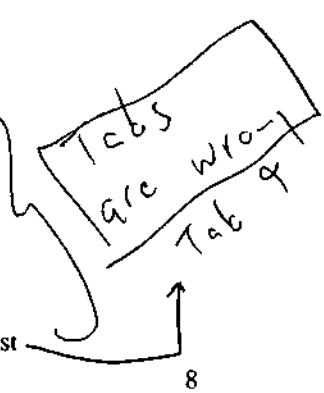
4.2.2 Assessment Components

The assessment would focus on the following components:

- Inspections of capped lots to ensure the integrity of the cap is being maintained.
- Inspection of the vegetation or other controls (i.e. rock, pavement) for maintaining the cap.
- Evaluate the potential of soils migrating off location and impacting surface waters.
- Landscaping or other activities that intrude on the cap.

4.2.3 Assessment Checklist[14]

While conducting the assessment a comprehensive checklist will be completed to document the results of the inspection. The report will be retained in PCMC Environmental Department and would be made available to regulatory agencies upon request. Furthermore, the results will be entered into Park City's Environmental Database in order to maintain a historical perspective of the assessments. Lots that are deemed to be out of compliance with the ordinance would be given a copy of the checklist and a notice regarding the issues that resulted in the loss of compliance.



Soil Sampling

8 Refer to Tab 3 for specific lots.
9 Refer to Tab 4 for specific lots.
10 Refer to Tab 5 for specific lots.
11 Refer to Tab 6 for specific lots.
12 Refer to Tab 8 for streets within area.
13 Refer to Tab 9 for streets within area.
14 Tab 7 Contains the Proposed Checklist

4.3 Soil Ordinance Resident Notices[15]

Residents of the Soil Ordinance area would be given literatures of the exposure of heavy metals and a sampling report of the sampling activity that has been conducted on the lot. The purpose of this notice is to increase the public awareness and conveying why the maintenance of the cap is mandatory.

4.4 Lots Without Certificate of Compliance Strategy

PCMC will pursue the goal of capping 15 properties per year. The capping goal will be achieved by contacting property owners to inform them of their property's compliance status and informing them of the benefits of capping the lot. In addition, for those that have the desire to verify the property's compliance PCMC will offer compliance sampling at no charge. The offer would be available for owners that would like to know the status of the lot and for those that have capped and want validation. Refer to Figure 2, lots projected in black are absent the "Certificate of Compliance" and have not been sampled nor capped.

5.0 EDUCATION AND PUBLIC OUTREACH

A very important component of this EMS is public awareness; therefore PCMC will design educational materials to facilitate residents learning about what they can do to protect their families, and themselves, from the dangers of lead. This training will be presented within brochures[16], videos, and other media in order to increase awareness to the public residing within the Ordinance area.

5.1.0 Soils Issues

The awareness campaign will include informing the public of Park City's mining history and the by-products that were generated from this activity. In addition, the training program will explain the amounts of lead that could be found within the soils in the Soils Ordinance Area. This component will explain the ordinance controls for controlling and minimizing lead impacted soils.

5.1.1 Lead Type and Associated Health Risks

The training and awareness program will also address the health risks of ingesting lead media. This portion of the training will include defining the symptoms, affects, and health risks posed by lead poisoning.

5.1.2 Residential Best Management Practices

Best Management Practices will be specified within the training to make the public aware of how the risk can be reduced. The training module would include the following:

- Importance of maintaining the cap.
- Minimize exposed soil areas.

15 Tab 8 Contains Proposed Sample Report
16 Tab 10 Lead Management Strategies for Prospector Homeowners

- Replacing soils back into excavations and capped with clean topsoil.
- Vegetation importance.
- Prohibits infants from eating soils or playing in dirt.
- After any type of landscaping activity wash hands and close thoroughly.
- Avoid the tracking of boots after yard work within the living area of the house.
- The washing of any fruits or vegetables produced from a garden.

5.1.3 Landscaping Specifications[17]

This portion of the training would include PCMC's landscaping specifications. The following would be included within the description of this module:

- Landscaping and gardening above grade.
- Landscaping and gardening below grade.
- Specification for planting of trees or shrubs.
- Removing potentially regulated soils from the lots.

5.1.4 Exporting Soil Characterization and Disposal Requirements

This section would include explaining potential regulatory authority, in the event an owner decides to remove soil from the property. It would include the explanation of RCRA and how soils being removed off location could be potentially regulated under this law.

5.1.5 Summit County Lead Screening Services

Summit County does provide free lead screening for parents who wish to test their children for blood led. As a result the Educational Component will include making parents aware of this service and the locations in which the testing can be done. Summit County works very closely with the Utah State Health Department and the Utah Blood Lead Registry. Park City within this EMS will propose to pay for the blood lead test for children meeting the following eligibility:

- Resident within the Ordinance Boundaries for 1 year.
- Have not traveled out of the country for 6 months.

For parents that wish to have their children tested, PCMC will agree to reimburse the entity for the test providing the results are supplied to the City and entered into a database for an historical perspective. In the event of a high-test result, PCMC will work cooperatively with Summit County and the State Health Department to discover the origin of the lead. PCMC will rely on the Utah Department of Health and Summit County contingency program for investigating blood lead contact scenarios. PCMC will make residents aware of the testing program and the locations to where the test can be conducted.

5.2 Presentation Media

The presentation of this information could be conveyed in the following media formats:

17 Tab 9 Represents Park City Landscaping Specifications

- Radio
- Television
- Video
- Internet (www.parkcity2002.com)
- Informational Pamphlets and Brochures.
- Conveyed by Real Estate Agents.
- Library
- City Hall
- Building and Planning Departments.

5.3 Sampling Reports on Sampling History of Lots[18]

For the assessment areas that are inspected, the property owners will be given an historical report that documents the lots compliance history. This information would include sampling events that occurred before the lot was capped and after the lot was capped. Furthermore, this report would also include the associated health risks with the underlying constituents contained by the cap. In addition, the report would identify locations for blood lead testing services.

5.4 New Residents Orientation

Real Estate agents would be given a comprehensive brochure that would provide new residents with all health risks, environmental, and ordinance issues that exist within the Ordinance Area.

5.5 Real Estate Orientation

Real Estate owners would be provided with an annual workshop to make them aware of the ordinance and regulatory standards. Informational brochures would be presented at the workshop with the intent of the information being conveyed to potential homeowners.

5.6 Renters Orientation

Properties that are currently being rented would be given educational informational material to increase awareness. This information would be an addendum to lease agreements and would specify the Ordinance requirements for the unit they are renting.

5.7 Lead Awareness Campaign to Pediatricians

Local Pediatrician would be contacted and provided with information on the historical mining impacts of the area and the potential of lead exposure to children. They would be encouraged to test for blood lead on children in addition to utilizing the State Blood Registry as a reporting mechanism.

6.0 PROSPECTOR SAMPLING RECORDS AND DATA

PCMC will develop a comprehensive database to track lot compliance and analytical results. The Environmental Department will maintain this database and generate an annual report to regulatory agencies requesting information.

18. Tab 8 Contains Proposed Lot Report

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TAB REFERENCE

Tab 1 – Robert Duprey, Director of Hazardous Waste Management Division letter dated July 28th 1988

Tab 2 – Chapter 15 Park City Landscaping and Maintenance of Soil Cover 11-15-1

Tab 3 – Area 1 Inspection Zone and Address List

Tab 4 – Area 2 Inspection Zone and Address List

Tab 5 – Area 3 Inspection Zone and Address List

Tab 6 – Area 4 Inspection Zone and Address List

Tab 7 – Area 5 Inspection Zone and Street List

Tab 8 – Area 6 Inspection Zone and Street List

Tab 9 – EMS Inspection Checklist

Tab 10 – Resident Lot Sample Report

Tab 11 – Landscaping Specifications

Tab 12 – Lead Management Strategies ©

Tab 13 – Soils Ordinance Boundary Map

Tab 14 – Expanded Area Lots that have been sampled.

Tab 15 – Stakeholder Distribution List

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

TO WHOM IT MAY CONCERN:

EPA, in cooperation with the Utah Department of Health and Park City, completed a comprehensive environmental evaluation of mine tailings in the Park City area. These studies were the equivalent of a Superfund Remedial Investigation and, therefore, we are confident in reaching the following conclusions:

1. EPA concurs with ATSDR's finding that there is no evidence of exposure to toxic metals such as lead, arsenic, or cadmium at levels believed to be harmful to current residents.

2. There are potential concerns with metals due to elevated levels in soils should extended exposure occur. However, no air quality or drinking water standards in the area have been exceeded.

3. Property which is effectively covered with top soil and maintained can adequately remediate and solve the potential problem of direct contact with tailings.

4. In our judgment, compliance with the Park City ordinance related to cover where metal levels are elevated can ensure protection of public health.

5. EPA believes that if Park City and its property owners implement EPA recommendations, there will be effective remediation to possible exposure. EPA sees no impediment to financial transactions involving properties that are remediated to prevent such exposure.

Robert L. Duprey, Director
Hazardous Waste Management Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2405

JUL 28 1988

Ref: 8HWM-SR

Ms. Arlene Loble
City Manager
Park City Municipal Corporation
P.O. Box 1480
Park City, Utah 84060

Dear Arlene:

We have completed work on the Ambient Air and Residential Characterization Report for Prospector Square. Our final report, a copy of which is enclosed, presents the background, methods, and results from all sampling conducted by EPA under the approved work plan for this phase of the Prospector Square field work. As you know, the second and remaining phase of the Prospector Square field work, addressing ground and surface water, will be covered in a report to be prepared by the Utah Department of Health.

EPA's enclosed study is the substantial equivalent of a remedial investigation; thus, we are confident in presenting recommendations to you that will prevent human exposure to heavy metals from the tailings in the Park City area. The findings and recommendations contained in this final air and soils report should be read and understood in light of the conclusions reached by the Agency for Toxic Substances and Disease Registry (ATSDR) at the conclusion of its extensive biological monitoring program in the Prospector Square community.

EPA conclusions are as follows:

1. EPA concurs in ATSDR's finding that there is no evidence of exposure to lead, arsenic, or cadmium at levels believed to be harmful among current residents in the study area.

2. There are potential direct contact and ambient air exposures posed by elevated levels of heavy metals in the Park City area. Specifically, our outdoor air study identified elevated levels of chromium, lead, zinc, and other metals in downwind samples compared to upwind samples. Although levels in the downwind samples were elevated, the overall levels of airborne contaminants were quite low and we can conclude that they do not present a public health hazard.

3. Our residential characterization study found the major area of contamination to be in the residential soils. The highest levels of lead, arsenic, and zinc in soil samples were consistently found at Prospector Square residences, the community closest to the exposed tailings. Lead levels were significantly

higher in the residential soils at Prospector Square compared to the other three zones in which samples were collected. It appears that property in Prospector Square that had been effectively covered, however, was within acceptable criteria and showed that additional remediation could solve the problem of direct contact with tailings.

4. Our analyses of residential airborne dust samples found most levels of metals either at or below the detection limit. Further, none of the levels of radon gas detected in the residences sampled was above the EPA action level of 4 picocuries per liter (piC/l).

Thus, the major areas of metals contamination found are the exposed tailings area and some of the residential soils at Prospector Square and in Park City. The major exposure pathway from either of these sources is ingestion. EPA's recommendations for remediation focus on minimizing the exposure of Prospector Square residents to the exposed tailings and to the residential soils.

RECOMMENDATIONS

1. EXPOSED TAILINGS

a) As a temporary measure, the remaining exposed tailings should be covered with at least 6 inches of suitable cover. This will help reduce the exposure to the residents of Prospector Square, particularly those residents who live within 200 feet of the exposed tailings and who would be exposed more frequently and to higher concentrations than would residents who live farther from the tailings.

b) Depending upon the future use of the exposed tailings area, more permanent measures should be considered which would protect the integrity of the cover for the long term. A minimum of 2 feet of suitable cover with grass or native vegetation is recommended to ensure the effectiveness of the cover over the long term. Two feet of soil cover will minimize the concentration of elevated levels of metal contaminants which would be expected near the soil surface as a result of annual plant recycling of soil nutrients. The concentration of metals in the upper soil profile could, if unmitigated, reach toxic levels for plants, thus reducing overall vigor of the vegetation and accelerating the erosion process. An alternative to 2 feet of soil cover would be development of the property in a manner (i.e., buildings and pavement) that would effectively eliminate the potential for exposure from the tailings.

c) Measures such as building codes and safety practices would need to be taken during any construction or disturbance of the tailings area to minimize exposure to the workers or nearby

residents from fugitive dust.
d) Institutional controls are an additional means of ensuring that the integrity of the cover is maintained over the long term. Such controls should include zoning ordinances and/or covenants on the property to ensure that future owners are aware of the importance of maintaining the soil/vegetative cover.

2. RESIDENTIAL SOILS

The high levels of lead, arsenic, manganese, and zinc found in some of the residential soils can not be solely attributed to the levels of airborne contaminants migrating from the exposed tailings. The high level of contaminants in the residential soils is in part due to the tailings material underlying most of Prospector Square. We are concerned that individual landscaping practices may not ensure adequate cover of the tailings material at present or in the future. Activities such as gardening (both vegetable and flower) or the planting of bushes and trees could present a potential exposure pathway to the residents. Other activities that could present a possible exposure pathway to residents include construction, street repair, or utility maintenance.

a) EPA recommends further testing of residential soils to identify those areas with elevated levels of metals. Based on the results of such testing, a number of options may be considered to ensure adequate cover of the tailings. Residences where the yards have already been landscaped may be more limited in the options available.

b) EPA has at its disposal the means of testing the residential soils with a quick turnaround (1 day) time, should the city or residents wish to have further testing done. Additional soil capping efforts are recommended if surface soil samples (upper 1 inch) have lead levels in the range of 1000-2000 ppm (milligrams per kilograms of soil). If the surface soil levels are greater than 2000 ppm in a residential area after capping and other remedial efforts, those efforts are likely to have been ineffective and additional remedial activities are warranted. Additionally, if the soil levels are greater than 2000 ppm, we recommend that a survey of the priority pollutant metals be run and additional risk assessment analysis completed. Testing of soils using X-ray fluorescence scans would be an appropriate technique.

c) Additional soil cover up to 1 foot is recommended where high levels of metals occur in soils that are presently sodded with grass. A soil cover of 6 inches will break the human exposure pathway presented by the residential soils, but 6 inches of soil will not ensure long-term protection. If the grass in a landscaped yard is currently showing signs of stress (not due to a lack of watering or maintenance), the possibility of

insufficient suitable soil cover for the grass roots must be considered. For yards that are not yet landscaped, residents may wish to consider placing up to 2 feet of suitable soil cover over the tailings material. We also recommend the addition of limestone or a similar calcium carbonate enrichment to the soil as a means of minimizing the effects of high metal concentrations.

For those vacant lots that were covered with 6 inches of suitable soil cover under the Special Improvement District authority, EPA considers that measure to be a temporary measure until the lots are developed. EPA assumes that that cover will be maintained. At the time that the lots are developed, measures will need to be taken during construction to minimize exposure to the nearby residents and to the workers. Additional soil cover up to 2 feet on these undeveloped lots should be considered as part of any landscaping effort.

d) Generally, for flower or vegetable gardening, the practice of turning over the soil would not disturb more than 1 foot of cover. However, for trees or bushes, additional soil material is generally excavated during landscaping. Particular care should be taken in digging up tailings material in such locations to ensure that such material is not mixed with suitable soil material or placed at the surface. To ensure healthy trees and bushes, a resident may wish to consider the selection of species with a high tolerance to metals such as lead, cadmium, zinc, or manganese. At the time of planting trees or bushes, the excavation of additional material and replacement with suitable soil material may be desirable to ensure an adequate supply of suitable material for rooting as the plant grows. However, the disposal of this "tailings" material in an appropriate place needs to be assured.

The evaluation for the potential effects of the metals upon plant growth are much more variable. However, the human health criteria will also generally be protective to plants. At this particular site, metals other than lead will likely be the offending agents. Zinc and copper are likely candidates with additional effects expected from the remaining metals. We recommend that, in areas with stressed vegetation after capping or other remedial efforts, additional sampling be conducted. We recommend that the soil samples be composited from the surface to a depth of 24 inches. Testing of the soils using X-ray fluorescence scans would be appropriate.

e) Institutional controls are an additional means of ensuring that the integrity of the cover is maintained over the long term. Such controls should include zoning ordinances and/or covenants on the property to ensure that future owners are aware of the importance of maintaining the soil/vegetative cover.

The above measures are recommended as a means of remediating the resident's exposure to elevated levels of metal contaminants posed by the exposed tailings area and by the residential soils. By covering the exposed tailings and increasing the soil cover of the yards, the potential for exposure through ingestion or inhalation can be significantly reduced. Following implementation of the above recommendations or other measures deemed appropriate, EPA recommends that the City or State conduct additional monitoring to ensure the effectiveness of these measures.

Specifically, we are hopeful that enforceable ordinances or other regulatory mechanisms can be put in place by Park City to ensure the effectiveness and longevity of actions taken to isolate the residents of Prospector Square from the metals of concern. Such ordinances should ensure the protectiveness of the remedial actions taken even as property is transferred over time.

EPA believes that, if Park City and its property owners implement these recommendations, there will be effective remediation to possible exposure to heavy metals found in tailings at and around the Prospector Square area. EPA does not create liability; therefore, we cannot remove liability. However, EPA can state that it sees no impediment to financial transactions involving properties remediated in accordance with the above recommendations.

EPA appreciates your patience throughout the course of our studies and we hope that our recommendations will lead to a more healthy environment for the residents of Park City, Utah.

Sincerely,

Robert L. Duprey, Director
Hazardous Waste Management Division

Enclosure

cc: B. Bradford, UDH

TABBED PAGE

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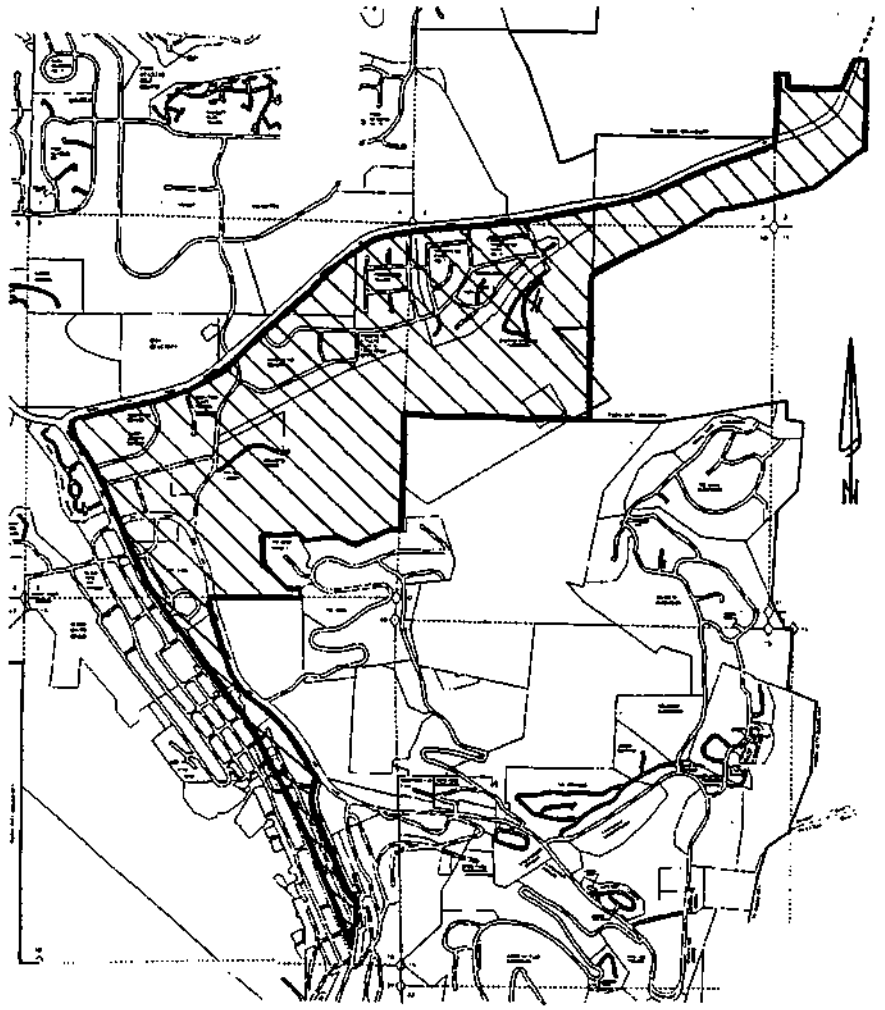
PARK CITY MUNICIPAL CODE TITLE 11 - BUILDING REGULATIONS
Disclaimer: The information in this document is subject to change at any time and without notification. This document is updated through October 1999. The most current version of the Park City Municipal Code is maintained at the City Attorney's office at 435-615-5025

CHAPTER 15 - PARK CITY LANDSCAPING AND MAINTENANCE OF SOIL COVER
11-15- 1. AREA.

This Chapter shall be in full force and effect only in that portion of Park City, Utah which is commonly known as that portion which is depicted in the map below.



MAP OF AREA SUBJECT TO LANDSCAPING AND TOPSOIL REQUIREMENTS
(ORIGINAL MAP ON FILE IN THE CITY RECORDER'S OFFICE)

and as described as follows:

Beginning at the West 1/4 Corner of Section 10, Township 2 South, Range 4 East, Salt Lake Base & Meridian; running thence east along the center section line to the center of Section 10, T.2 South, R.4 East; thence north along the center section line to a point on the easterly Park City limit line, said point being South 00°04'16" West 564.84 feet from the north 1/4 corner of Section 10, T.2S., R.4E.; thence along the easterly Park City limit line for the following fourteen (14) courses: North 60°11'00" East 508.36'; thence North 62°56' East 1500.00'; thence North 41°00' West 30.60 feet; thence North 75°55' East 1431.27'; thence North 78°12'40" East 44.69 feet; thence North 53°45'47" East 917.79 feet; thence South 89°18'31" East 47.22 feet; thence North 00°01'06" East 1324.11 feet; thence North 89°49'09" West 195.80 feet; thence South 22°00'47" West 432.52'; thence South 89°40'28" West 829.07 feet; thence North 00°09'00" West 199.12 feet; thence West 154.34 feet to a point on the west line of Section 2, T.2S., R.4E.; thence south on the section line to the southerly right-of-way line of State Road 248; thence westerly along said southerly right-of-way line to the easterly right-of-way line of State Road 224, also known as Park Avenue; thence southerly along the easterly line of Park Avenue to the west line of Main Street; thence northerly along the westerly line of Main Street to the northerly line of 2nd Street (originally platted as 6th Street); thence easterly across Main Street to the westerly line of Swede Alley (originally platted as Farrell Alley, 6th Street, and Grant Avenue); thence northerly along the westerly line of Swede Alley to the westerly line of State Road 224, also known as Deer Valley Drive; thence northerly along the westerly line of State Road 224 to the southerly line of Section 9, T.2S., R.4E.; thence easterly to the west line of Section 10, T.2S., R.4E.; thence northerly to the point of beginning.

EXCEPTING THEREFROM all lots platted as Aerie Subdivision and Aerie Subdivision Phase 2, according to the official plats thereof recorded in the office of the Summit County Recorder.

11-15- 2. MINIMUM COVERAGE WITH TOPSOIL.

All real property within the Area must be covered and maintained with a minimum cover of six inches (6") of approved topsoil over mine tailings except where such real property is covered by asphalt, concrete or permanent structures or paving materials. Parking shall be restricted to impervious surfaces.

11-15- 3. VEGETATION.

All areas in the Area where real property is covered with six inches (6") or more of approved topsoil must be vegetated with plant material suitable to prevent erosion of topsoil.

11-15- 4. ADDITIONAL LANDSCAPING REQUIREMENTS.

In addition to the minimum coverage of topsoil requirements set forth in Section 4 and the vegetation requirements set forth in Section 5, the following additional requirements shall also be applicable:

(A) **FLOWER OR VEGETABLE PLANTING BED AT GRADE**. All flower or vegetable planting beds at grade shall be clearly defined with edging material to prevent edge drift and shall have a minimum depth of twenty-four inches (24") of approved topsoil so that tailings are not mixed with the soil through normal tilling procedures. Such topsoil shall extend twelve inches (12") beyond the edge of the flower or vegetable planting bed.

(B) **FLOWER OR VEGETABLE PLANTING BED ABOVE GRADE**. All flower or vegetable planting beds above grade shall extend a minimum of sixteen inches (16") above the grade of the six inches (6") of approved topsoil cover and shall contain only approved topsoil.

(C) **SHRUBS AND TREES**. All shrubs planted after the passage of this Chapter shall be surrounded by approved topsoil for an area which is three times bigger than the rootball and extends six inches (6") below the lowest root of the shrub at planting. All trees planted after the passage of this Chapter shall have a minimum of eighteen inches (18") of approved topsoil around the rootball with a minimum of twelve inches (12") of approved topsoil below the lowest root of the tree.

11-15- 5. DISPOSAL OR REMOVAL OF AREA SOIL.

All soil disturbed or removed from Area, unless a representative sample tested at a State certified laboratory determines the soil is not a hazardous waste, shall be disposed of only at a facility approved by the Utah State Department of Health, or covered on site with six inches of approved topsoil and re-vegetated as required by this Chapter.

11-15- 6. DUST CONTROL.

Contractor or owner is responsible for controlling dust during the time between beginning of construction activity and the establishment of plant growth sufficient to control the emissions of dust from any site. Due care shall be taken by the contractor or owner, to protect workmen while working within the site from any exposure to dust emissions during construction activity by providing suitable breathing apparatus or other appropriate control.

11-15- 7. CERTIFICATE OF COMPLIANCE.

Upon application by the owner of record or agent to the Park City Building Department and payment of the fee established by the department, the Park City Building Department shall inspect the applicant's property for compliance with this Chapter. When the property inspected complies with this Chapter, a Certificate of Compliance shall be issued to the owner by the Park City Building Department.

11-15- 8. DISPOSAL.

Any work that produces excess tailings not contained on the site, according to the standards set forth in this Chapter, must have a representative sample of the soil to be transported off the site tested by a State certified laboratory to determine if it is hazardous waste. If the excess soil is

determined to be a hazardous waste, it must be transported to a disposal facility approved by the Utah State Health Department. Any work causing tailings to possibly be regenerated to the surface, such as digging, must collect and properly dispose of the tailings, either on site according to the standards set forth in this Chapter or off site as required by this Chapter and state and federal law.

11-15- 9. ENFORCEMENT.

With the exception of new construction, which shall be inspected and required to comply in accordance with other City permitting and inspections, this Chapter shall be enforced through voluntary requests for inspections to obtain Certificates of Compliance. If a request is made for the Certificate of Compliance as set forth in Section 11-16-7, then the owner of the property shall be required to comply with the standards set forth in this Chapter.

11-15-10. WELLS.

All wells for culinary irrigation or stock watering use are prohibited in the Area.

11-15-11. FAILURE TO COMPLY WITH CHAPTER.

The failure to landscape, maintain landscaping, control dust or dispose of tailings as required by this Chapter shall constitute a public nuisance as determined by the City Council of Park City.

TABBED PAGE

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Area 1 EMS Assessment Zone
N

Area 1 Inspection Zone

7/22/2002

Address

2267 Samuel Colt Court
2555 Sidewinder Drive
2268 Samuel Colt Court
2555 Sidewinder Drive
2320 Little Bessie Avenue
2268 Samuel Colt Court
2276 Samuel Colt Court
2268 Samuel Colt Court
2340 Little Bessie Avenue
2274 Doc Holliday Drive
2605 Sidewinder Drive
2284 Comstock Drive
2293 Buffalo Bill Drive
2286 Doc Holliday Drive
2293 Doc Holliday Drive
2273 Samuel Colt Court
2300 Comstock Drive
2294 Buffalo Bill Drive
2279 Samuel Colt Court
2276 Samuel Colt Court
2308 Doc Holliday Drive
2305 Buffalo Bill Drive
2625 Sidewinder Drive
2645 Sidewinder Drive
2316 Comstock Drive
2306 Buffalo Bill Drive
2665 Sidewinder Drive
2307 Doc Holliday Drive
2880 Cochise Court
2685 Sidewinder Drive
2715 Sidewinder Drive
2900 Cochise Court
2370 Doc Holliday Drive
2735 Sidewinder Drive
2384 Doc Holliday Drive
2320 Comstock Drive
2740 Butch Cassidy Court
2755 Sidewinder Drive
2320 Buffalo Bill Drive
2755 Sidewinder Drive
2770 Butch Cassidy Court
2755 Sidewinder Drive
2404 Doc Holliday Drive
2293 Wyatt Earp Way
2805 Sidewinder Drive
2775 Sidewinder Drive
2770 Butch Cassidy Court
2775 Sidewinder Drive
2775 Sidewinder Drive
2800 Butch Cassidy Court
2805 Sidewinder Drive
2800 Butch Cassidy Court
2424 Doc Holliday Drive
2920 Cochise Court
2450 Doc Holliday Drive
2315 Buffalo Bill Drive
2660 Butch Cassidy Court
2326 Comstock Drive
2640 Butch Cassidy Court

Area 1 Inspection Zone

7/22/2002

Address

2334 Buffalo Bill Drive
2885 Cochise Court
2680 Butch Cassidy Court
2321 Doc Holliday Drive
2710 Butch Cassidy Court
2830 Butch Cassidy Court
2740 Butch Cassidy Court
2338 Comstock Drive
2770 Butch Cassidy Court
2800 Butch Cassidy Court
2349 Doc Holliday Drive
2361 Doc Holliday Drive
2344 Buffalo Bill Drive
2375 Doc Holliday Drive
2318 Wyatt Earp Way
2389 Doc Holliday Drive
2405 Doc Holliday Drive
2905 Cochise Court
2925 Cochise Court
2425 Doc Holliday Drive
2499 Doc Holliday Drive
2915 Cochise Court
2465 Doc Holliday Drive
2645 Butch Cassidy Drive
2356 Buffalo Bill Drive
2645 Butch Cassidy Drive
2356 Buffalo Bill Drive
2356 Buffalo Bill Drive
2655 Butch Cassidy Court
2356 Buffalo Bill Drive
Kearns Buffer Area 3
2356 Buffalo Bill Drive
2655 Butch Cassidy Court
Kearns Buffer Area 3
2655 Butch Cassidy Court
Kearns Buffer Area 3
2655 Butch Cassidy Court
2685 Butch Cassidy Court
2705 Butch Cassidy Court
2735 Butch Cassidy Court
2765 Butch Cassidy Court
Kearns Buffer Area 2
2795 Butch Cassidy Court
2337 Wyatt Earp Way
Kearns Buffer Area 3

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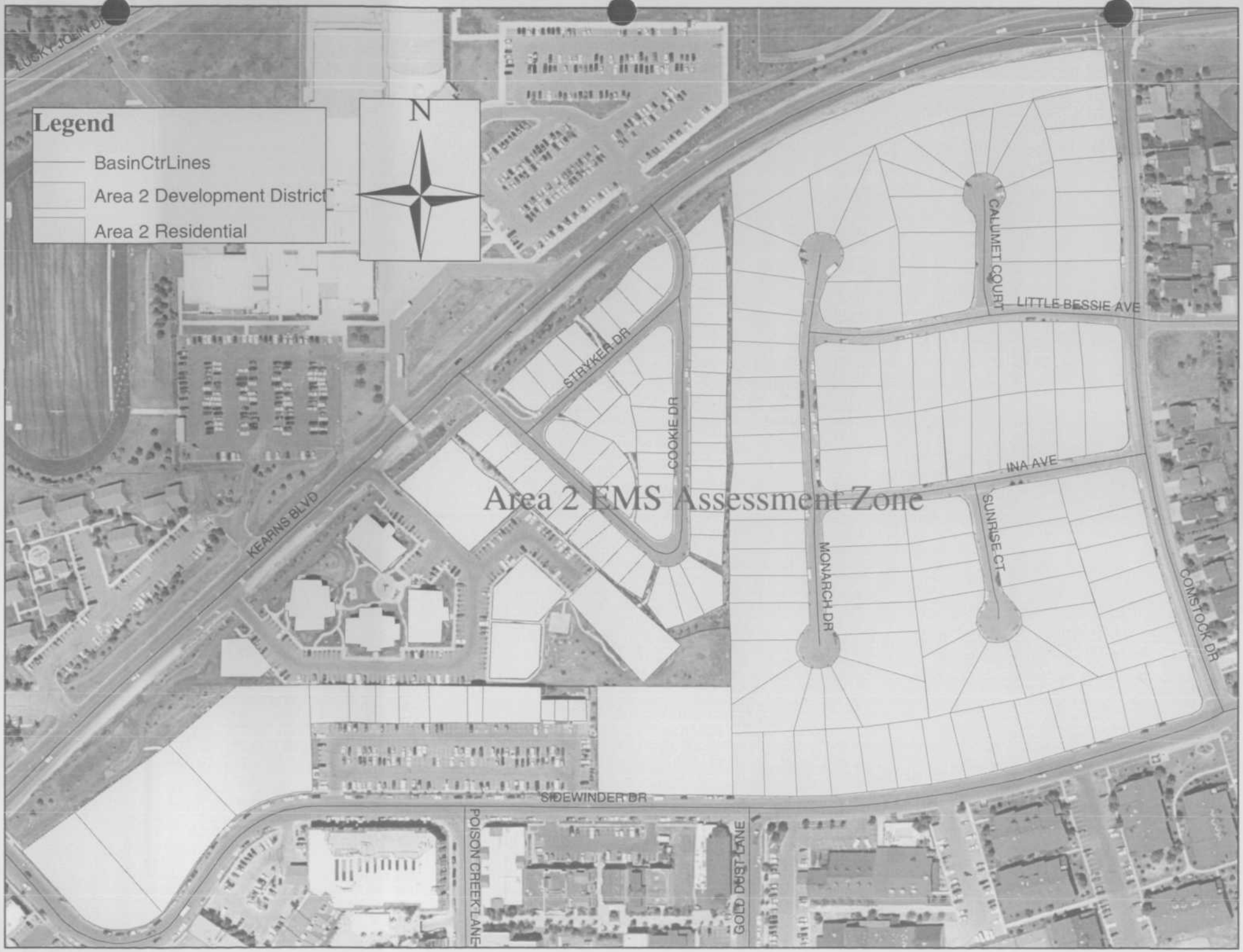
4


Legend
BasinCtrLines
Area 2 Development District
Area 2 Residential
N
Area 2 EMS Assessment Zone
LUCKY JOE IN DR
STRYKER DR
COOKIE DR
KEARNS BLVD
CALUMET COURT
LITTLE BESSIE AVE
INA AVE
MONARCH DR
SUNRISE CT
COMSTOCK DR
SIDEWINDER DR
POISON CREEK LANE
GOLD DUST LANE

Area 2 Inspection Zone - Residential

7/22/2002

Address

2100 Sidewinder Drive
2124 Sidewinder Drive
2148 Sidewinder Drive
2166 Sidewinder Drive
2180 Sidewinder Drive
2196 Sidewinder Drive
2212 Sidewinder Drive
2226 Sidewinder Drive
2173 Sunrise Circle
2226 Sidewinder Drive
2173 Sunrise Circle
2238 Sidewinder Drive
2238 Sidewinder Drive
2256 Sidewinder Drive
2174 Sunrise Circle
2256 Sidewinder Drive
2174 Sunrise Circle
2270 Sidewinder Drive
2270 Sidewinder Drive
2175 Sunrise Circle
2166 Monarch Drive
2168 Monarch Drive
2175 Sunrise Circle
2166 Monarch Drive
2174 Sunrise Circle
2286 Sidewinder Drive
2178 Sunrise Circle
2286 Sidewinder Drive
2286 Sidewinder Drive
2162 Monarch Drive
2164 Monarch Drive
2298 Sidewinder Drive
2167 Monarch Drive
2168 Monarch Drive
2175 Sunrise Circle
2166 Monarch Drive
2168 Monarch Drive
2166 Monarch Drive
2169 Comstock Drive
2173 Sunrise Circle
2169 Monarch Drive
2168 Monarch Drive
2175 Sunrise Circle
2174 Sunrise Circle
2175 Comstock Drive
2177 Monarch Drive
2178 Sunrise Circle
2180 Monarch Drive
2178 Sunrise Circle
2197 Comstock Drive
2189 Comstock Drive
2179 Sunrise Circle Unit 1
2188 Sunrise Circle #A
2197 Comstock Drive
2189 Monarch Drive
2186 Monarch Drive
2188 Sunrise Circle #A
2197 Comstock Drive
2193 Sunrise Circle

Area 2 Inspection Zone - Residential

7/22/2002

Address

2199 Monarch Drive
2194 Monarch Drive
2198 Sunrise Circle
2198 Sunrise Circle
2211 Comstock Drive
2207 Comstock Drive
2205 Sunrise Circle
2208 Sunrise Circle
2211 Comstock Drive
2209 Monarch Drive
2208 Sunrise Circle
2211 Comstock Drive
2210 Monarch Drive
2215 Ina Avenue
2219 Monarch Drive
2224 Ina Avenue
2261 Ina Avenue
2291 Ina Avenue
2237 Monarch Drive
2232 Monarch Drive
2243 Monarch Drive
2240 Monarch Drive
2198 Ina Avenue
2212 Ina Avenue
2224 Ina Avenue
2212 Ina Avenue
2253 Monarch Drive
2224 Ina Avenue
2236 Ina Avenue
2252 Ina Avenue
2268 Ina Avenue
2284 Ina Avenue
2250 Monarch Drive
2300 Ina Avenue
2265 Monarch Drive
2167 Monarch Drive
2273 Monarch Drive
2197 Little Bessie Avenue
2213 Little Bessie Avenue
2225 Little Bessie Avenue
2237 Little Bessie Avenue
2259 Comstock Drive
2253 Little Bessie Avenue
2269 Little Bessie Avenue
2285 Little Bessie Avenue
2277 Monarch Drive
2164 Little Bessie Avenue
2279 Monarch Drive
2214 Little Bessie Avenue
2258 little Bessie Avenue
2279 Comstock Drive
2287 Calumet Circle
2296 Calumet Circle
2288 Monarch Drive
2291 Comstock Drive
2287 Monarch Drive
2309 Calumet Circle
2313 Comstock Drive
2301 Monarch Drive

Area 2 Inspection Zone - Residential

7/22/2002

Address
2316 Calumet Circle
2315 Calumet Circle
2319 Comstock Drive
2304 Monarch Drive
2302 Monarch Drive
2321 Calumet Circle
2317 Calumet Circle
2317 Calumet Circle
2323 Comstock Drive
2321 Calumet Circle
2323 Calumet Circle
Kearns Buffer Area 1
2323 Calumet Circle
2322 Calumet Circle
2320 Calumet Circle
2335 Comstock Drive
Kearns Buffer Area 1
2335 Comstock Drive
Kearns Buffer Area 1

Area 2 Development District

7/22/2002

Address

1750 Sidewinder Drive
1820 Sidewinder Drive Unit 100
1992 Sidewinder Drive
1976 Sidewinder Drive
2024 Sidewinder Drive
1992 Sidewinder Drive
2024 Sidewinder Drive
2060 Sidewinder Drive
1976 Sidewinder Drive
1960 Sidewinder Drive
1912 Sidewinder Drive
1944 Sidewinder Drive
1850 Sidewinder Drive Unit 310
1912 Sidewinder Drive
1912 Sidewinder Drive
1912 Sidewinder Drive
1847 Kearns Blvd
1867 Kearns Blvd
1855 Kearns Blvd
1859 Kearns Blvd
1841 Kearns Blvd
1875 Kearns Blvd
1965 Cooke Drive
1971 Cooke Drive
1871 Kearns Blvd
1977 Cooke Drive
1959 Cooke Drive
1953 Cooke Drive
1983 Cooke Drive
1947 Cooke Drive
1863 Kearns Blvd
1989 Cooke Drive
1941 Cooke Drive
1992 Cooke Drive
1935 Cooke Drive
1995 Cooke Drive
1929 Cooke Drive
1998 Cooke Drive
2001 Cooke Drive
1938 Cooke Drive
1923 Cooke Drive
2004 Cooke Drive
1932 Cooke Drive
1900 Cooke Drive - Play Area
1917 Cooke Drive
2007 Cooke Drive
1932 Cooke Drive
1899 Kearns Blvd
2010 Cooke Drive
1900 Cooke Drive - Play Area
2010 Cooke Drive
1926 Cooke Drive
1900 Cooke Drive - Play Area
1926 Cooke Drive
1911 Cooke Drive
1920 Cooke Drive
2013 Cooke Drive
1905 Cooke Drive
2016 Cooke Drive

Area 2 Development District

7/22/2002

Address

2016 Cooke Drive
1900 Cooke Drive - Play Area
2022 Cooke Drive
1900 Cooke Drive - Play Area
2022 Cooke Drive
1900 Cooke Drive - Play Area
1954 Cooke Drive
1900 Cooke Drive - Play Area
2019 Cooke Drive
1900 Cooke Drive - Play Area
1942 Cooke Drive
1900 Cooke Drive - Play Area
1930 Cooke Drive
2022 Cooke Drive
1942 Cooke Drive
2025 Cooke Drive
1915 Cooke Drive
1954 Cooke Drive
1927 Cooke Drive
2031 Cooke Drive
1939 Cooke Drive
1970 Cooke Drive
2037 Cooke Drive
1951 Cooke Drive
1963 Cooke Drive
2043 Cooke Drive
1975 Cooke Drive
2049 Cooke Drive
1987 Cooke Drive
2055 Cooke Drive
1999 Cooke Drive
2061 Cooke Drive

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Area 3 EMS Assessment Zone
BUFFALO BILL DR
DOC HOLLADAY DR
SAMUEL COLT CT
SIDEWINDER DR
GERONIMO COURT
ANNIE OAKLEY DR
BELLE STARR COURT
LILY LANGTRY CT
PADDINGTON DR
N

Area 3 Inspection Zone

7/22/2002

Address

2110 Belle Starr Court
2113 Belle Starr Court
2116 Belle Starr Court
2432 Lily Langtry Court
2422 Lily Langtry Court
2125 Belle Starr Court
2130 Belle Starr Court
2442 Lily Langtry Court
2411 Lily Langtry Court
2141 Belle Starr Court
2452 Lily Langtry Court
2336 Sidewinder Drive
2142 Belle Starr Court
2431 Lily Langtry Court
2142 Belle Starr Court
2472 Lily Langtry Court
2370 Sidewinder Drive
2431 Lily Langtry Court
2492 Lily Langtry Court
2441 Lily Langtry Court
2451 Lily Langtry Court
2512 Lily Langtry Court
2150 Belle Starr Court
2420 Sidewinder Drive
2522 Annie Oakley Drive
2532 Annie Oakley Drive
2502 Annie Oakley Drive
2552 Annie Oakley Drive
2440 Sidewinder Drive
2482 Annie Oakley Drive
2584 Annie Oakley Drive
2460 Sidewinder Drive
2604 Annie Oakley Drive
2525 Annie Oakley Drive
2528 Geronimo Court
2505 Annie Oakley Drive
2624 Annie Oakley Drive
2475 Annie Oakley Drive
2644 Annie Oakley Drive
2623 Annie Oakley Drive
2490 Sidewinder Drive
2533 Geronimo Court
2538 Geronimo Court
2664 Annie Oakley Drive
2510 Sidewinder Drive
2530 Sidewinder Drive
2541 Geronimo Court
2753 Annie Oakley Drive
2550 Geronimo Court
2684 Annie Oakley Drive
2550 Sidewinder Drive
2541 Geronimo Court
2541 Geronimo Court
2530 Sidewinder Drive
2706 Annie Oakley Drive
2660 Sidewinder Drive
2558 Geronimo Court
2660 Sidewinder Drive
2558 Geronimo Court

Area 3 Inspection Zone

7/22/2002

Address

2660 Sidewinder Drive
2558 Geronimo Court
2630 Sidewinder Drive
2673 Annie Oakley Drive
2549 Geronimo Court
2558 Geronimo Court
2558 Geronimo Court
2630 Sidewinder Drive
2726 Annie Oakley Drive
2557 Geronimo Court
2550 Sidewinder Drive
2693 Annie Oakley Drive
2746 Annie Oakley Drive
2590 Sidewinder Drive
2713 Annie Oakley Drive
2766 Annie Oakley Drive
2630 Sidewinder Drive
2660 Sidewinder Drive
2630 Sidewinder Drive
2743 Annie Oakley Drive
2660 Sidewinder Drive
2786 Annie Oakley Drive
2690 Sidewinder Drive
2730 Sidewinder Drive
2775 Sidewinder Drive
2800 Annie Oakley Drive
2820 Sidewinder Drive
2840 Sidewinder Drive

TABBED PAGE

6


Area 41 MS Assessment Zone
KEARNS BLVD
COOKIE DR
MONARCH DR
COMSTOCK DR
SIDEWINDER DR
POISON CREEK LANE
GOLD DUST LANE
BONANZA DRIVE
PROSPECTOR AVE
IRON HORSE LOOP
N

Area 4 Inspection Zone

7/22/2002

Address

1755 Prospector Avenue
1890 Bonanza Drive
1885 Prospector Avenue
1881 Prospector Avenue
1915 Prospector Avenue
1760 Prospector Avenue
1885 Prospector Avenue
1889 Prospector Avenue
1885 Prospector Avenue
1881 Prospector Avenue
1913 Prospector Avenue
1762-A Prospector Avenue
1889 Prospector Avenue
1911 Prospector Avenue
1762B Prospector Avenue
1901 Prospector Avenue
1846 Prospector Avenue
1907 Prospector Avenue
1764 Prospector Avenue
1782 Prospector Avenue
1830 Prospector Avenue
1710 Prospector Avenue
1796 Prospector Avenue
1800 Prospector Avenue
1910 Prospector Avenue
1678 Prospector Avenue
1816 Prospector Avenue
2015 Prospector Avenue
1914 Prospector Avenue
1745 Sidewinder Drive
2045 Prospector Avenue
2105 Prosp Ave #200
1753 Sidewinder Drive
1640 Kearns Blvd
1918 Prospector Avenue
1670 Bonanza Drive #1
1741 Sidewinder Drive
1781 Sidewinder Drive
1862 Prospector Avenue
1765 Sidewinder Drive
1787 Sidewinder Drive
1876 Prospector Avenue
1650 Kearns Blvd
1662 Bonanza Drive
1733 Sidewinder Drive
1795 Sidewinder Drive
1890 Prospector Avenue
1920 Prospector Avenue #1
1801 Sidewinder Drive
1729 Sidewinder Drive
1922 Prospector Avenue
1811 Sidewinder Drive
1811 Sidewinder Drive
1821 Sidewinder Drive
2078 Prospector Avenue
1926 Prospector Avenue
1727 Sidewinder Drive
2092 Gold Dust Lane
1821 Sidewinder Drive

Area 4 Inspection Zone

7/22/2002

Address

1811 Sidewinder Drive
1821 Sidewinder Drive
2036 Prospector Avenue
2052 Prospector Avenue
1811 Sidewinder Drive
1821 Sidewinder Drive
1811 Sidewinder Drive
2064 Prospector Avenue
1940 Prospector Avenue
2000 Prospector Avenue #101
1887 Gold Dust Lane #101
1750 Sidewinder Drive
2080 Gold Dust Lane
1821 Sidewinder Drive
1725 Sidewinder Drive
2255 Sidewinder Drive
1723 Sidewinder Drive
2305 Sidewinder Drive
2001 Sidewinder Drive
1901 Sidewinder Drive
2029 Sidewinder Drive
2001 Sidewinder Drive
2015 Sidewinder Drive
2041 Sidewinder Drive
2053 Sidewinder Drive
2065 Sidewinder Drive
2245 Sidewinder Drive
2175 Gold Dust Lane
1901 Sidewinder Drive
1895 Sidewinder Drive
2079 Sidewinder Drive
2093 Sidewinder Drive
2325 Sidewinder Drive
2325 Sidewinder Drive
2285 Sidewinder Drive

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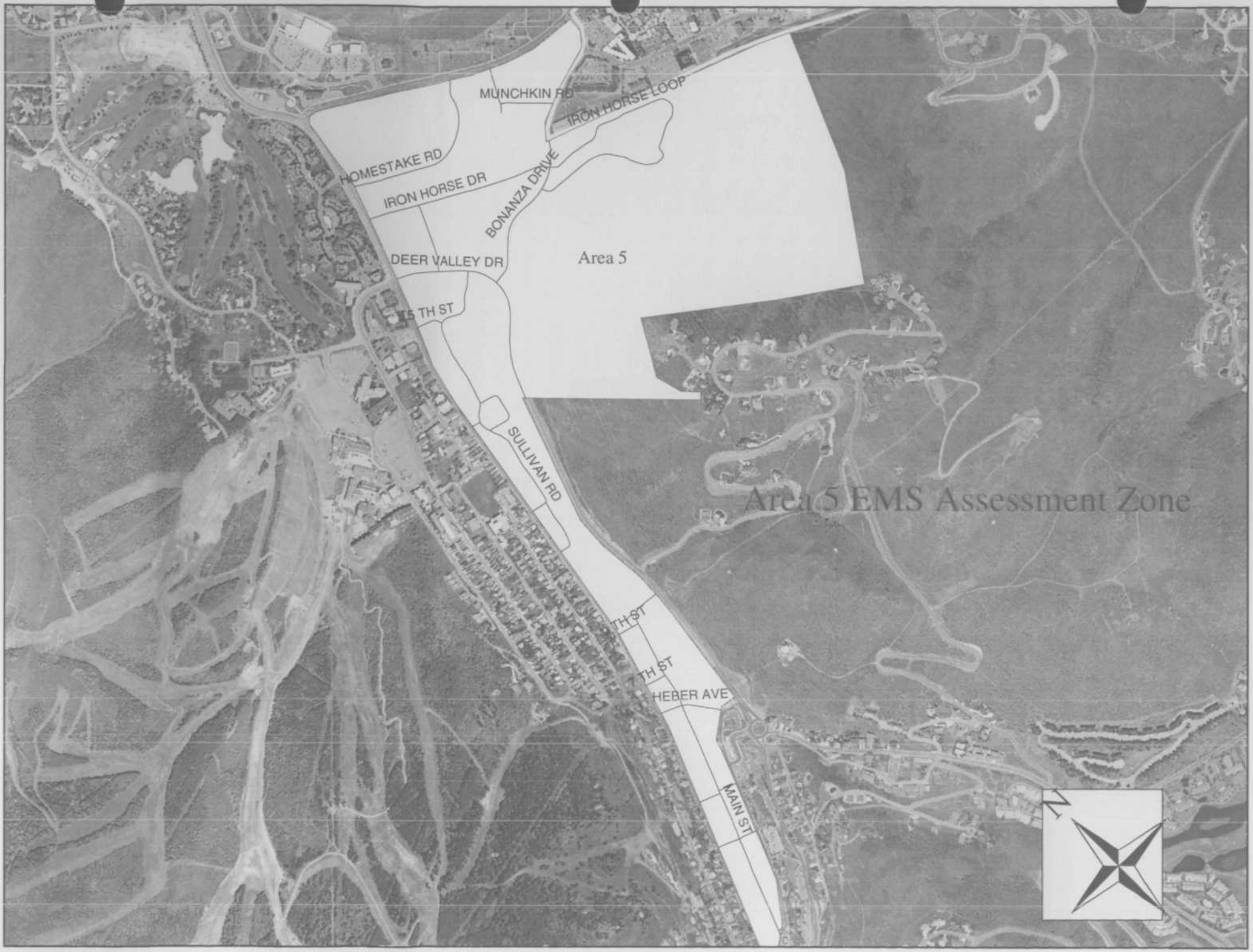
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IRON HORSE LOOP
HOMESTAKE RD
IRON HORSE DR
BONANZA DRIVE
DEER VALLEY DR
Area 5
5 TH ST
SULLIVAN RD
Area 5 EMS Assessment Zone
TH ST
7 TH ST
HEBER AVE
MAIN ST
N

Area 5 Roads

8/13/2002

S_NAME
DALY AVE
SWEDE ALLEY
4 TH ST
MAIN ST
4 TH ST
5 TH ST
MAIN ST
MAIN ST

HEBER AVE
MAIN ST
HEBER AVE
7 TH ST
MAIN ST
9 TH ST
MAIN ST
9 TH ST
MAIN ST
MAIN ST

MAIN ST

SULLIVAN RD
SULLIVAN RD
SULLIVAN RD
SULLIVAN RD

SULLIVAN RD
15 TH ST
DEER VALLEY DR
SULLIVAN RD
DEER VALLEY DR
DEER VALLEY DR
IRON HORSE DR
SHORT LINE RD
BONANZA DRIVE
BONANZA DRIVE
IRON HORSE DR
BONANZA DRIVE
IRON HORSE LOOP
WOODBINE ROAD
MUNCHKIN RD
IRON HORSE LOOP
HOMESTAKE RD
WOODBINE ROAD

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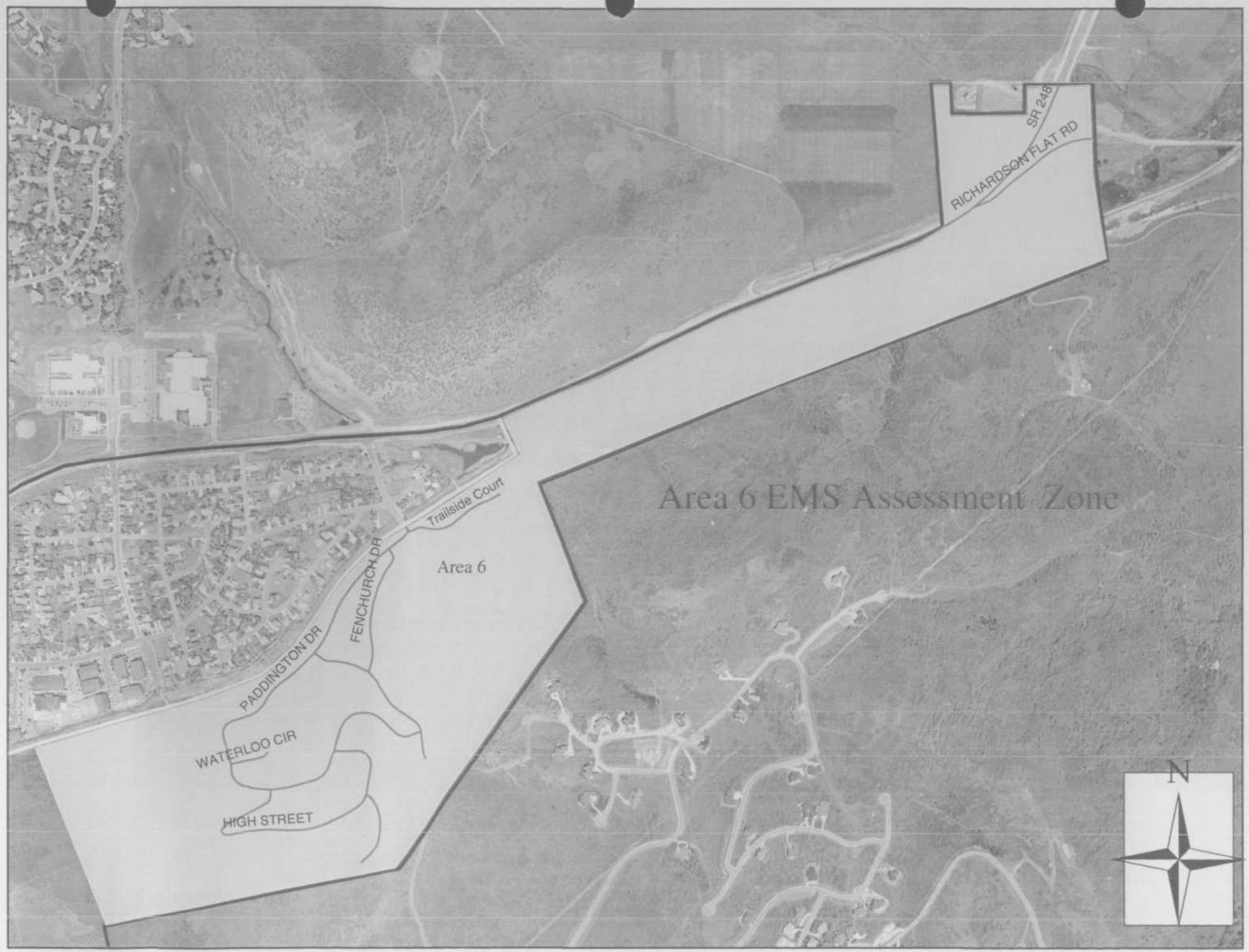
Area 6 EMS Assessment Zone
Area 6
SR 248
RICHARDSON FLAT RD
Trailside Court
FENCHURCH DR
PADDINGTON DR
WATERLOO CIR
HIGH STREET
N

Area 6 Roads

8/13/2002

S_NAME
VICTORIA CIRCLE
HIGH STREET
PADDINGTON DR
WATERLOO CIR
PADDINGTON DR
HIGH STREET
FENCHURCH DR
PADDINGTON DR
FENCHURCH DR
PADDINGTON DR
EUSTON DR
PADDINGTON DR
FENCHURCH DR
PADDINGTON DR
WYATT EARP WAY
Trailside Court
SR 248
RICHARDSON FLAT RD
SR 248

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Prospector EMS Inspection Checklist

Park City Representative:	Jeff Schoenbacher
Home Owner Assoc. Rep:	President
UDEQ Representative:	UDEQ or EPA Representative

Inspection Date: Wednesday, August 21, 2002 **Weather Conditions:** **Sustained Wind Direction:**

Inspection Time: **Date Recent Storm Event:** **Wind Speed:**

Inspection Zone	Question	Yes/No	Comments
Prospector Property	Is cap in place and fully functional?	☐ Yes ☐ No	
	Is there any sign of erosion or exposed soil?	☐ Yes ☐ No	
	Is the vegetation or other paved areas adequate?	☐ Yes ☐ No	
	Does it appear soils is migrating off location?	☐ Yes ☐ No	
	Is the landscaping adequate?	☐ Yes ☐ No	
Summary	Are there enforcement issues related to this lot? (Explain)	☐ Yes ☐ No	
	Should there be a follow-up inspection?	☐ Yes ☐ No	

PC Representative: **Date:** **HOA Representative** **Date:** **UDEQ or USEPA Representative** **Date:**

I hereby certify that the information given above is true and complete to the best of my knowledge .

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Sample Report For Ordinance Compliance

Jeff Schoenbacher, Environmental Specialist

Date of Report: Wednesday, August 21, 2002

Address	Lab Report Number:	Sample ID:	Result mg/Kg	Property Eligible for Certificate of Compliance Based on Results
2208 Sunrise Circle				
	9686	DECK	4070.00	☐ Yes ☐ Complaint ☑ Initial Inspection ☐ Improvement District Lot
		YARD	3250.00	☐ Yes ☐ Complaint ☑ Initial Inspection ☐ Improvement District Lot
		LAWN	375.00	☐ Yes ☐ Complaint ☑ Initial Inspection ☐ Improvement District Lot
		DECK	259.00	☐ Yes ☐ Complaint ☑ Initial Inspection ☐ Improvement District Lot
		LAWN	162.00	☐ Yes ☐ Complaint ☑ Initial Inspection ☐ Improvement District Lot
		PLANTER	156.00	☐ Yes ☐ Complaint ☑ Initial Inspection ☐ Improvement District Lot
Number of Samples for 2208 Sunrise Circle (6)		**Lot Average**	**1378.67**	

Note: "Existing" landscaping cannot exceed 1000 ppm. and "New" landscaping cannot exceed 200 ppm. Refer to CHAPTER 15 - PARK CITY LANDSCAPING AND MAINTENANCE OF SOIL COVER 11-15- 1.

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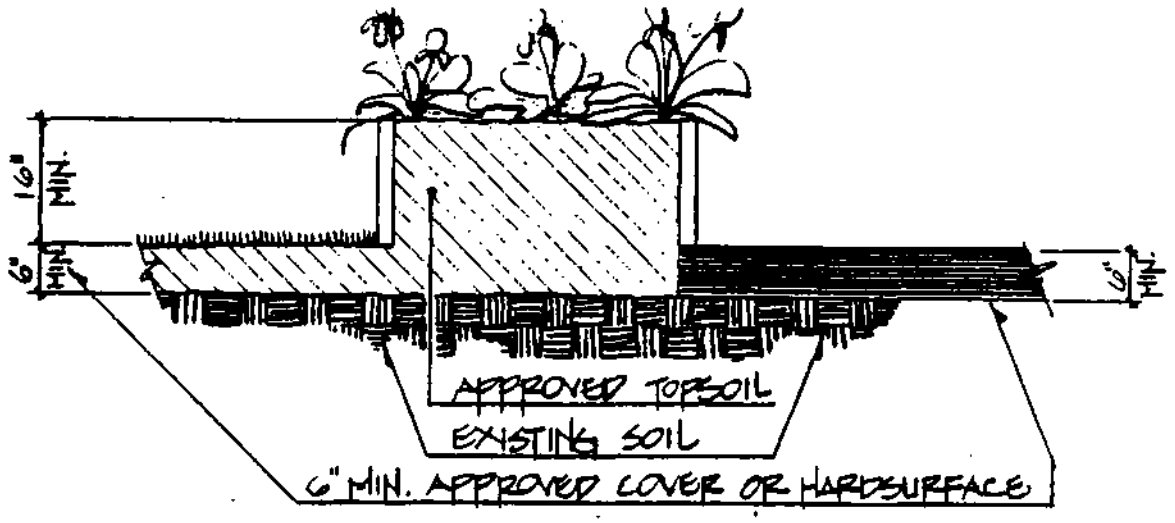
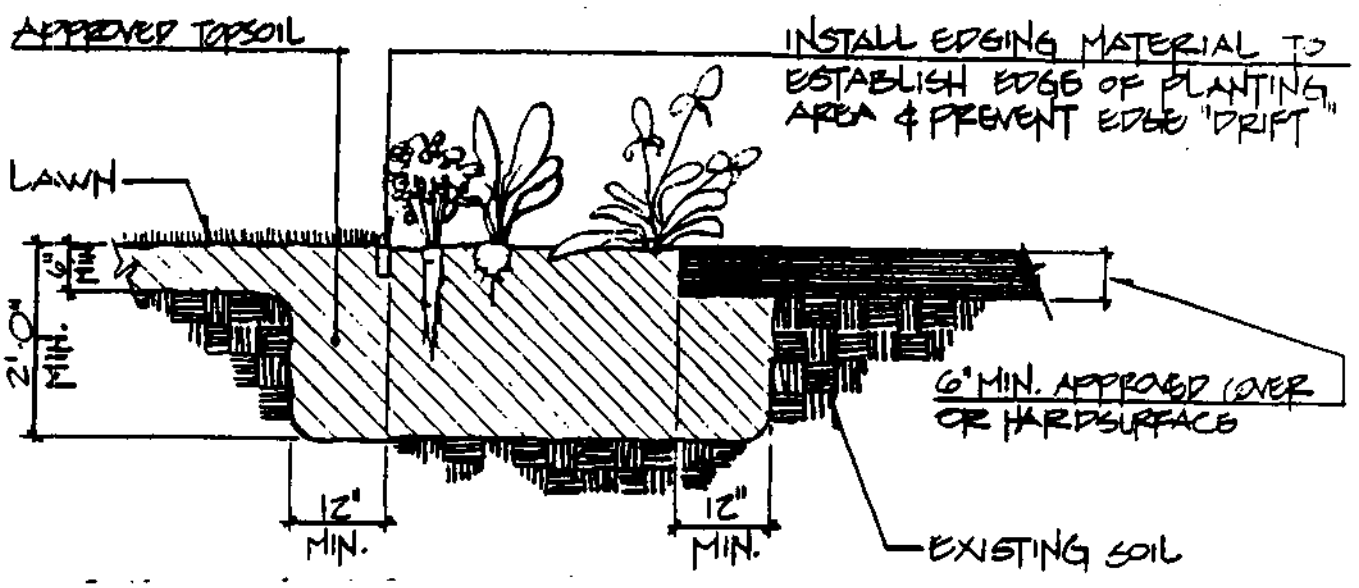
Soils Ordinance Reccomended Plant Bed Diagrams



Bed Specifications for planting at above grade.

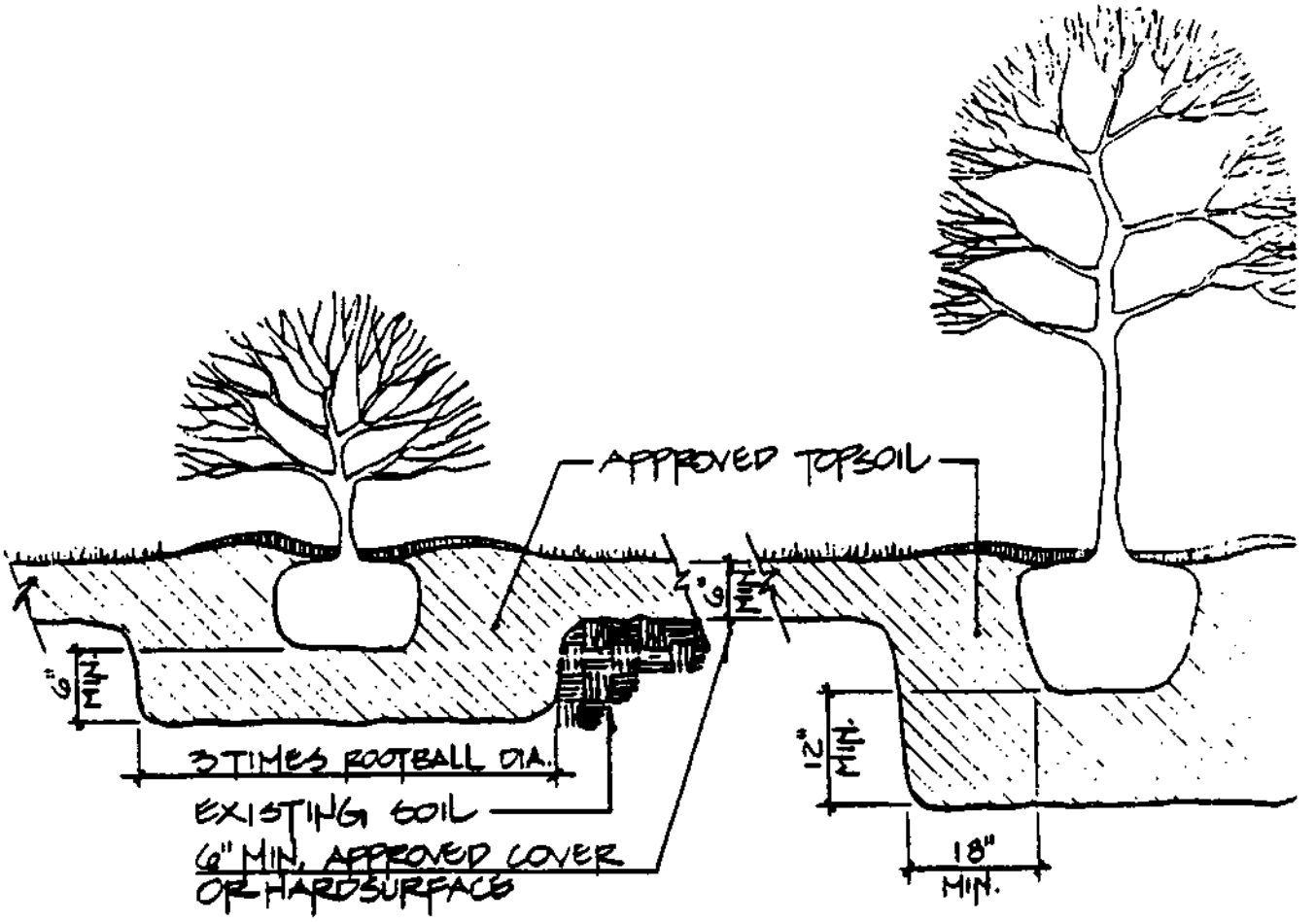
Summary: Flowers and Vegetable planting beds above grade 16" of approved topsoil. This is soil that has been tested and is below 200 ppm lead.



Bed Specifications for planting at grade.

Summary: Flowers and Vegetable planting beds at grade 24" of approved topsoil. This is soil that has been tested and is below 200 ppm lead.

Soils Ordinance Reccomended Plant Bed Diagrams



Summary: Shrubs and Trees must have at a minimum 6" or maximum of 18" of approved topsoil around ball. This is soil that has been tested and is below 200 ppm lead.

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LEAD MANAGEMENT STRATEGIES FOR PROSPECTOR HOMEOWNERS

This pamphlet was developed to assist the current and prospective resident of Prospector to be aware of various lead issues and to properly manage and knowingly understand those issues.

Background.

The Prospector residential area overlays ground that contains mine tailings. Mine tailings are the sandy residue from the mineral processing conducted from the extraction of lead, silver and other metals from the mines in the Park City area. Tailings are produced by grinding the metallic ore into small particles, then running the particles through various acidic extraction solutions to leach out, or remove, the metal content, a process not unlike making coffee. The tailings in the Prospector area have been "triple leached", meaning that the tailings have been processed three times to recover as much of the mineral content as possible. However, there are still various amounts of lead, silver, and other metals present in the tailings.

The Prospector area, while overlaying mine tailings, is not alone in the Park City area in having lead in the soils. Many of the soils in the Park City area exhibit high levels of lead from the former mining and smelting activities in the district, including areas surrounding former mine sites (and you can see many of the old mine dumps around town), and smelter sites. Park City is not unique either, for many of the Salt Lake residential areas (such as Sandy) have even higher levels of lead coming from old smelter sites than does Prospector. Often, the lead at those other sites is in a form that is more "bio-available" than the lead contained in the Prospector tailings, meaning that it is in a form that if ingested, is more readily absorbed into the blood stream and body tissues, and therefore poses even a higher risk of problems to the residents.

Due to the metal content and the concern about lead and the special nature of the tailings, the Prospector area is part of the Park City Soils Ordinance (more about that later), which was enacted to protect the public health from the potential exposure to the metal content of the tailings. We have been assured numerous times by the City officials, such as Toby Ross, that we do not have a health risk and the potential risk of lead poisoning from the tailings is believed to be quite low. The low risk is mainly due to the low leaching potential of the metals that remain that were not leached out in the mineral processing and the low "bio-availability" of the species of lead in the tailings. Nevertheless, it is prudent to properly manage those tailings to prevent exposure and to understand the issue for the homeowner.

In point of fact, lead contamination in residential neighborhoods can arise in a number of ways, including besides soil contamination, lead in old paint (which was banned in 1978 but still is present in many older homes and commercial buildings), lead in solder that was used in plumbing (now banned as well), lead in gasoline (now banned as well), and lead in crystal decanters, lead in certain ceramic glazings and the like and even lead dust arising from certain types of window blinds. Homeowners should be aware of all of these potential pathways to lead contamination, wherever they live. Those problems are not dependent upon socio economic

status, or geographical areas, and are a source of concern for public health officials nation-wide, including the EPA. Properly managed, it is highly unlikely that the Prospector tailings would present any greater risk to the residents than those other sources of potential lead contamination. With this brochure, you should also be receiving a copy of the EPA's pamphlet, Lead in the Home, which talks more about the risk of lead in general.

Lead Toxicity and Chemistry

The potential risk to a person is determined by measuring blood lead levels, in micrograms per deciliter, or ug/dL. The overall blood lead levels in the US population has been decreasing from 12.8 to 2.8 to 2.3 ug/dL at present[1]. When the residents of Prospector underwent blood lead testing in the 1980's, the average blood lead level was just slightly above the US average and within statistical variations. It is expected that the blood lead levels in the Prospector area have declined with the general US population and further evaluation of that trend will be developed by Park City and PHOA acting in cooperation with the EPA and public health authorities.

Metallic lead is a very stable element as evidenced by the use of lead plumbing still in use in some areas of Europe stemming from the Roman times. Lead is a metal used in many critical industrial and consumer applications, including your car battery, your computer screen, and others. Lead can, however, pose an elevated risk of toxicity, particularly in certain chemical states, and the dangers of lead toxicity have been well documented. To constitute a risk, the lead must be ingested in one form or another into the body.

Lead in its pure metallic or alloy form is not very mobile in the environment and it is not generally "bio-available" (i.e., is not absorbed into the bloodstream).[2] To become mobile and bio-available, lead must first oxidize to the cation form, a rather slow process. If, however, lead is in an environment favorable for formation of certain compounds such as lead phosphate or lead sulfide, it becomes generally insoluble and not bio-available.

The most critical factor in this process is the pH of the surrounding soil. As the soil's pH becomes more acidic or more alkaline, falling below 6.5 or above 8.5, the potential for lead to dissolve and become mobile increases. The pH for Western soils is often 7 or higher, i.e., more alkaline. However, the actual pH of yard dirt may vary substantially depending on where the soil came from. Many high organic soils, especially those derived from evergreen forest areas, can exhibit low pH, or in other words, be more acidic than the soils in general. As such, the acidity may interact with the lead remaining in the tailings to make it more mobile and bio-available.

Also, another extremely important factor in lead mobility is the presence of phosphorus. Both phosphorus in its elemental form, and in the form of phosphate rock, interacts with lead to form the insoluble mineral pyromorphite, which essentially "locks up" the lead. However, the

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[1] Screening for Elevated Blood Lead Levels (RE9815), American Academy of Pediatrics, Pediatrics Volume 101, Number 6, June 1998 pp 1072-1078.

[2] Environmental Compliance and Liability for Outdoor Shooting Ranges – Potential Problems and Feasible Solutions. Stuart Z. Cohen, Ph.D., CGWP, President, Environmental & Turf Services, Inc., Wheaton, Maryland, reproduced in the Outdoor Range Source Book, National Rifle Association, page 19.

chemical reaction to form the pyromorphite material is less efficient at higher pH levels. It is desirable, then, to maintain the basic soil chemistry at a pH level around 6, with the judicious addition of phosphate rock to immobilize the lead. However, due to the potential for ground water contamination from phosphates, the Prospector Homeowners Association is not recommending application of phosphates at present, but will work with the City and others to determine if there is a good mechanism to use this potentially highly useful device.

The potential for lead to enter into ground water is also a potential concern depending on the porosity of the soils, the amount of clay and organic material in the soil, and the depth to groundwater. Clayey soils and organic material tends to trap the lead. Sandy and porous soils have a higher potential for allowing groundwater contact.[3]

Consequently, properly managed, with soils chemistry kept within stated parameters, the potential for lead bio-availability can be kept to an absolute minimum through pH control and the judicious application of phosphate rock. Monitoring of this is critical, but is well within the ability of the average homeowner with some simple soils tests. Often, the local Agricultural Extension office will offer advice on pH testing for the homeowner.

Lead Management of Yards for the Homeowner.

Thus, the homeowner should understand that despite the relative stability of the lead in the tailings, there is a chance for the lead to become mobile, which means it can travel up and down the soil column and enter surface or underground waters, and may in certain conditions become bio-available and pose a toxicity risk to living things. It is essential that the homeowner understand the pH issue as it relates to their yard soils. As noted, many of the forest soils, such as those containing pine needles, etc., and many of the composted soils, unless pH neutralized, can actually have a low pH and can aggravate the lead exposure risk. The point is that simply covering the tailings with low pH soils can actually aggravate the situation. Also, because many of the soils in the Park City and Salt Lake areas exhibit high lead levels from old mine and smelter sites, it is critical to understand the soil chemistry when obtaining replacement soils for landscaping, etc. Testing for pH is a relatively simple procedure and can be done by the homeowner using one of the kits available at the lawn and garden shops. Testing for lead contained in the replacement soils is more cumbersome and the Park City [contact] can help advise on those issues. Where new construction is being done, or total yard landscaping undertaken, both the lead content and the pH content of the replacement soils should be determined in advance. Further, the homeowner should strive to achieve yard plantings that thrive best in neutral pH soils, rather than pines and other evergreens that do best in more acidic soils.

Should areas of low pH be found within the yard, control of pH should be undertaken by the homeowner through the use of lime (you should use "agricultural lime, not hydrated lime") to retain a neutral or slightly high pH level. Your local lawn and garden shop can help advise as to the correct application to achieve the correct pH balance. Furthermore, one of the single most important elements for preventing lead mobility is the judicious application of phosphates. Lead phosphate compounds, which form naturally, are some of the most stable compounds known and

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[3] Id, page 3-8.

virtually eliminate the potential for biological uptake of the lead. However, at the same time, the addition of excessive levels of phosphates may result in surface water and/or ground water phosphate contamination. Sound homeowner management of their yards will include periodic monitoring and regulation of pH and phosphate levels to acceptable levels to minimize the potential impacts on groundwater and surface water and to limit the bio-availability and mobility of the lead compounds.

Prospector Soils Ordinance. On December 8, 1988, Park City adopted Ordinance No. 88-11, relating to landscaping and soil coverage maintenance in the Prospector area. That Ordinance was later amended and the area expanded and is now known as the Park City Soils Ordinance. Pursuant to the Ordinance, any soil having lead of 1000 ppm or greater is deemed to be mine tailings and must be covered and maintained with a minimum cover of 6" of approved topsoil (having a lead content of 200 ppm or less) and have vegetation to prevent erosion, unless the soil is covered by asphalt, concrete or permanent structures or paving material. Also, the Ordinance specifies certain actions for flower or vegetable plantings. If the vegetable or flower beds are at grade, there must be edging material and have a minimum depth of 24" of approved topsoil so that tailings are not mixed, and that depth must extend at least a foot beyond the edge of the bed. For raised beds, there must be at least 16" of approved topsoil above the 6" of approved topsoil (22" total). Shrubs and trees planted must be surrounded by approved topsoil for an area that is three times bigger than the rootball and extends 6 inches below the lowest root of the shrub at planting for shrubs and trees must have a minimum of 18" of approved topsoil around the rootball with a minimum of 12" of approved topsoil below the lowest root of the tree.

Additionally, soils testing at or above 1000 ppm of lead cannot be disposed at any location other than an approved hazardous waste facility. The Owner is responsible for dust control, and there is a procedure whereby the City will issue a Certificate of Compliance for the property at the request of the Owner. There is also a provision for enforcement of the Ordinance by the City; however, the homeowners should be aware that the weakness of the enforcement is one of the issues that the EPA has targeted.

At present, the City has issued certificates of compliance for many of the lots in Prospector. However, due to the on-going maintenance obligations in the Ordinance, the issuance of a Certificate of Compliance does not in itself mean that no further actions are required. As new owners move in, and as additional plantings or yard work is done, all homeowners should recognize the need to maintain compliance with the Ordinance on an on-going basis. The key principle in the Ordinance is to establish the adequate amount of good soil covering the tailings, and maintenance of that cover. Interested homeowners can contact the City Planning Department to determine whether or not their home has a Certificate of Compliance and if not, what are the procedures needed to obtain the same.

Special Emphasis on Children. Because of the special susceptibility of young children to lead toxicity and due to the effects of lead toxicity on development in young children, special attention has been given to lead toxicity in children. For example, there have been a number of studies showing a link between high blood lead levels and reduced cognition in children and the magnitude of the effect has been estimated as an average loss of two to three points of IQ for

blood lead levels averaging 20ug/dL compared with those averaging 10 ug/dL.[4] In 1991, the Centers for Disease Control statement *Preventing Lead Poisoning in Young Children*[5] lowered the threshold for elevated blood lead levels as those equal to or greater than 10 ug/dL and recommended various treatment procedures. The actual toxicity of lead is a function, however, of the dose, the duration of exposure and the developmental and nutritional vulnerability of the child. The recommendations by the American Academy of Pediatrics relating to the urgency and extent of follow-up depends on the blood lead level, with the first step being to obtain a confimatory venous blood lead level. That step should be performed immediately if the initial level is > 70 ug/dL, within 48 hours if it is between 45 and 69 ug/dL; within 1 week if the result is 20 to 44 ug/dL, and within 1 month if the result is 10 to 19 ug/dL. Individualized case management, which includes a detailed medical history, nutritional assessment, physical examination, environmental investigation and hazard reduction, begins at a blood lead level of equal to or greater than 20 ug/dL.[6] As you may observe, it is only in the very high levels of blood lead content that immediate intervention is warranted and those levels are not expected to even be approached from the normal Park City exposures, absent some factor unique to a particular home.

Concerned parents with young children in the Prospector area may benefit from determining the actual blood lead level content of their children by obtaining a blood lead test of their children as part of the normal physical examinations. However, the parents should understand that blood drawn by the "finger prick" method may not be reliable due to the potential for contamination and may not be adequately reflective of the actual blood lead content. For this reason, the American Academy of Pediatrics has noted that the finger prick method requires a proper collection protocol and further recommends that if a finger prick method is used and has a value exceeding 10 ug/dL, the results should be determined by blood drawn by venous methods.[7] The PHOA will be working with the local health clinics to help them understand the issues and procedures to be able to evaluate the lead toxicity issue for Prospector residents.[8]

In the unlikely circumstance that your children are determined to have an elevated blood lead level, the first thing to do is consult your physician about any potential health effects and what additional steps may be needed for monitoring your child and reducing the exposure. The next thing that should be done is to do an assessment of your own home and environment. Was the home built before 1978? Do your children regularly visit a house or child care facility built before 1978 that is being or has recently been renovated or remodeled? Does your child have a sibling or playmate that has lead poisoning? Are there old window blinds in the house? Have your children been in old building areas that are being renovated? Do you smoke inside the

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4 Screening for Elevated Blood Lead Levels (RE9815), supra.

5 Centers for Disease Control and Prevent. *Preventing Lead Poisoning in Young Children: A Statement by the Centers for Disease Control, October, 1991.* Atlanta, GA: US Dept. of Health and Human Services, 1991.

6 Screening for Elevated Blood Lead Levers (RE9815), supra.

7 Screening for Elevated Blood Lead Levels (RE9815), supra.

8 Another concern is the laboratory procedures used to determine blood lead levels. The Center for Disease Control blood lead proficiency program for laboratories allows an error of plus or minus 4 ug/dL. Screening for Elevated Blood Lead Levels (RE9815), supra.

house? Do you make bullets or lead sinkers for fishing in your house? Are your children taking apart old flashlite batteries? Are your children playing with lead sinkers and putting their hands in their mouth? Do you burn candles with metal wicks? Are you using ceramic cookware or dishes that may be suspect? Do your children wash their hands before eating? Do you have a soils certification for your yard? Have the soils been properly replaced in new plantings? Have you built a sandbox and filled it with sand from an unknown source? Do you keep a clean house? All of these things may be pathways to toxicity and should be evaluated and the steps taken to correct them. All of these things, other than the soils ordinance, are also issues that can be faced by any parent anywhere in the United States.

Other Management Issues. The homeowner should understand that management of the lead tailings underneath their yards is only one aspect of proper household management to avoid lead toxicity. Other management techniques are extremely important in dealing with lead issues. There are a number of minor things that the homeowner can easily do to minimize the lead contamination problems. The homeowner should properly recycle lead batteries, including flashlight batteries and not simply dispose of them in the environment. Maintaining a clean home is essential in management of lead issues, and while probably not necessary, many people may feel more comfortable using a HEPA type vacuum cleaner in their home to prevent vacuum dust containing lead from entering the air. Avoidance of lead-coated window blinds is critical. Replacement of lead paint covered window sills is essential, and the guidelines in the attached EPA pamphlet are essential in this regard. Keeping alcoholic beverages out of lead decanters is a sensible idea. If your home has not been constructed in the last couple of years, before you use tap water for cooking or drinking, it is a good idea to let it run a few seconds first, which reduces the amount of lead that has leached out of the lead solder in your pipes. When digging in your yard, wearing gloves and washing your hands and clothes afterwards is a good idea. If you dig up the sandy residue (tailings) in planting trees, etc., you should try to carefully segregate that material and put it back in the hole first and cover it with the necessary 6" of good soil. Having your children always wash their hands prior to eating is essential.

Summary

The Prospector area is one of the best places to live in Park City. Affordable, family friendly, close to town, close to the hiking and rail trail recreation areas, close to the schools and easy access to both the interstate and Highway 40, it is an ideal place to live and raise a family. In the past, the area has been tainted by the lead tailings issue, with much of the fear coming from the residents not fully understanding the lead tailings issue and how to best manage that. Recognizing that the danger from lead toxicity comes from many sources, and is present in even more dangerous forms than in the Prospector area, should help to put this issue in perspective. Active management by the homeowner is by far the best way of accomplishing this, with cooperation from the City government and health officials. And, as time progresses, additional knowledge will assist homeowners in understanding these issues and in dealing with them in a sound, knowledgeable manner to ensure healthy lives of the residents in our wonderful area.

The Prospector Homeowners Association welcomes your comments and suggestions as we continue to work for the betterment of our neighborhood and preservation of our property values. We believe that the educated homeowner is one of the keys to effective management of

the lead issues that have dogged Prospector in the past. We welcome your participation in this process!

BIBLIOGRAPHY

The following sources of information are recommended for residents wishing to know more about lead. [let's see if the Park City library would devote some shelf space to this issue and we could accumulate info on it there.]

1. Screening for Elevated Blood Lead Levels (RE9815), American Academy of Pediatrics Policy Statement, Pediatrics Volume 101, Number 6, June 1998, pages 1072-1078.

2. Preventing Lead Poisoning in Young Children, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Publication date 10/01/1991.

3. Update: Blood Lead Levels -- United States, 1991-1994, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, MMWR February 21, 1997, Volume 46 No. 7.

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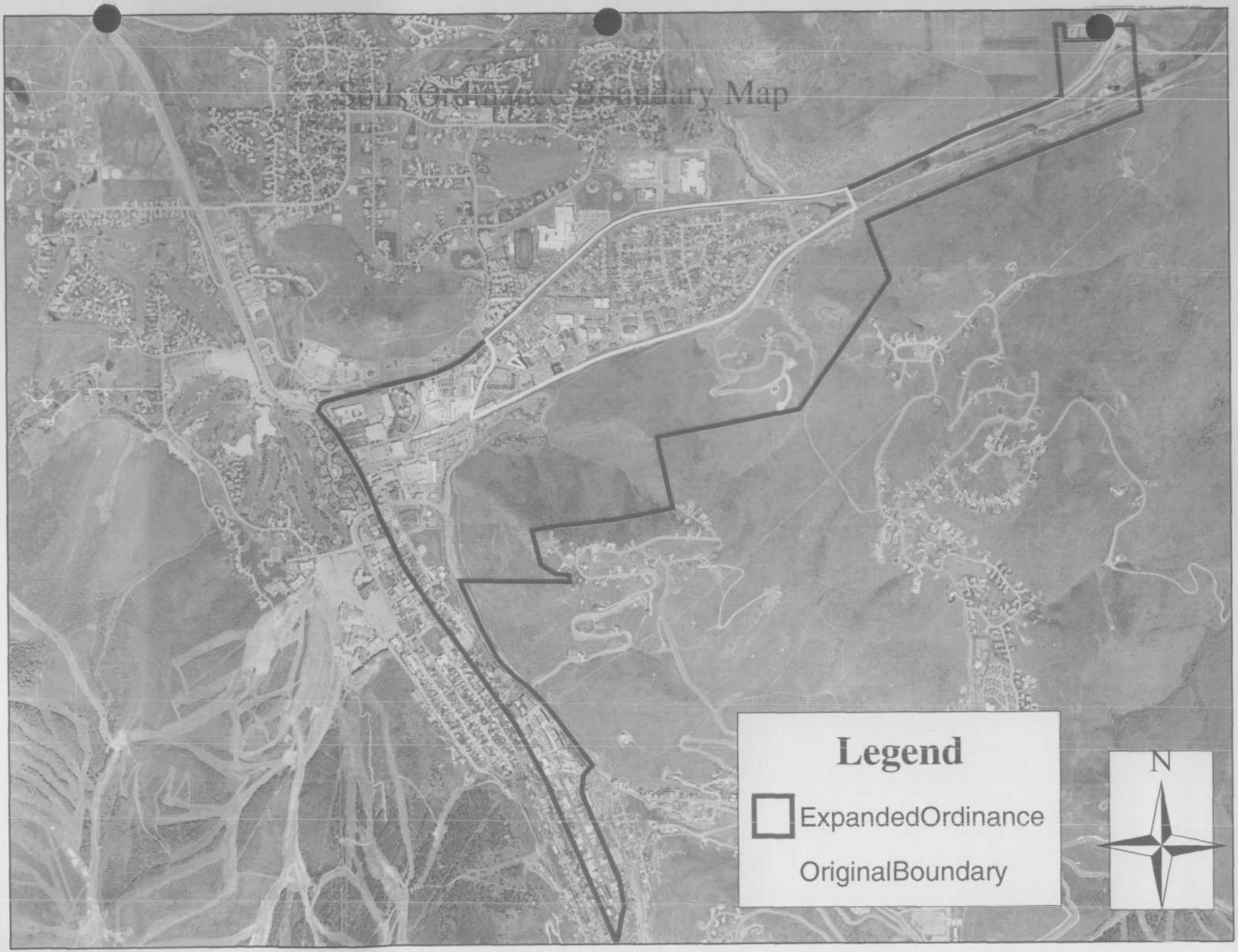
Legend
ExpandedOrdinance
OriginalBoundary
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14


Expanded Area Lots that have been sampled
Legend
ExpandedOrdinance
OriginalBoundary
N

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15

Park City Soils Ordinance Work Group

Report Generated By: Jeff Schoenbacher, Environmental Specialist

Date of Report: Wednesday, August 21, 2002

Prfx	*First Name*	*Last Name*	*Title*	*Organization*	*ADDRESS*	*PO*	*City*	*State*	*Zip*
Mr.	Dean	Berrett	Resident	Berrett Mortgage Services	P.O. Box 84		Park City	UT	84060
Ms.	Susan	Griffin	Toxicologist	EPA Region 8	1000 18th Street, Suite 300	Mail Code epr-sr	Denver	CO	80202
Ms.	Jennifer	Chergo	Public Affairs and Community Relations	EPA Region 8	999 18th Street, Suite 300	Mail Code epr-sr	Denver	CO	80202
Mr.	Jim	Christiansen	Project Manager	EPA Region 8	99918th Street, Suite 300	Mail Code epr-sr	Denver	CO	80202
Ms.	Ginger	Tolman	Resident	Mountainlands Community Housing	1960 Sidewinder, Suite 202		Park City	UT	84060
Mr.	Jeff	Schoenbacher	Environmental Coordinator	Park City Municipal Corporation	445 Marsac Avenue	PO 1480	Park City	UT	84060-1480
Mr.	Toby	Ross	City Manager	Park City Municipal Corporation	445 Marsac Avenue	PO 1480	Park City	UT	84060-1480
Mr.	David	Johnson	Resident	Prospector HOA	1912 Sidewinder Drive, Suite 200		Park City	UT	84060
Ms.	Kathy	Meyer	Resident	Prospector HOA	2624 Annie Oakley Drive		Park City	UT	84060
Ms.	Sally	Elliott	Resident	Prospector HOA	2690 Sidewinder		Park City	UT	84060
Mr.	Brent	Ovard	Project Manager	Summit County Health Department		P.O. Box 128	Coalville	UT	84017
Mr.	Scott	Everett	Toxicologist	UDEQ	169 North 1950 West	PO 144810	Salt Lake City	UT	84114-4810
Mr.	Ty	Howard	Supervisor	UDEQ	168 North 1950 West	PO 144811	Salt Lake City	UT	84114-4810
Mr.	Dave	Allison	Community Relations	UDEQ	168 North 1950 West	PO 144810	Salt Lake City	UT	84114-4810
Mr.	Mo	Slam	Project Manager	UDEQ	168 North 1950 West	PO 144810	Salt Lake City	UT	84114-4810